

Robert Todd Carroll



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Psychics, ESP, Delusions
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by James Randi
(The Amazing Randi)



Introduction by Isaac Asimov

abracadabra

Abracadabra is a mystical word used to magically invoke benevolent spirits for protection against disease. The expression is also used by modern magicians as they pretend to invoke paranormal or supernatural powers to aid in their illusions. This magical formula may be related to the word '[abraxas](#)', which was found on many [amulets](#) during the last years of the Roman Empire and is thought to have originated with the [Gnostics](#) or the Egyptians. In any case, *abracadabra* is just as effective as *abraxas* or *hocus-pocus*.

further reading

[reader comments](#)

[Schiffman, Nathaniel. *Abracadabra! : Secret Methods Magicians & Others Use to Deceive Their Audience* \(Prometheus Books, 1997\).](#)

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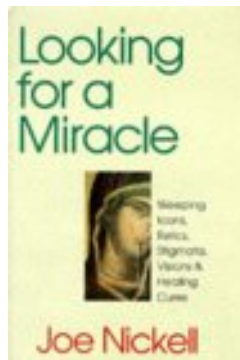


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reader comments:

24 Apr 00

I always enjoy reading your dictionary (it's the first place I turn to for my skeptical research). I noticed the entry for "abracadabra," and wanted to suggest another source for the term. According to a Princeton professor of Hebrew I knew, the phrase "avrah ke dibrah" translates roughly into "it happened as it was said." Magicians would use the phrase in the course of working their tricks. The words would be similar in Aramaic and other related languages.

Sheryl Zohn

Fri, 21 Jun 2002

To expand on Sheryl Zohn's definition of the word ABRACADABRA. In Aramaic, it is part of a sentence uttered by ancient magicians and healers . ABRA/CAD/ABRA. "It will pass when it will pass". (When it's time for it to pass).

Meyer Klein

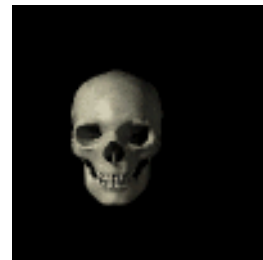


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[Voodoo call for African peace](#)

zombies and p-zombies

Zombies are dead bodies with no souls, created by the black magic of [voodoo sorcerers](#). Voodoo is a religion which originated in West Africa and was brought to Haiti in the early 16th century by West African slaves. The slaves could not practice their religion openly and were forced to adopt in public the practices of the French Catholic settlers. Voodoo is still a popular religion in Haiti and in cities where Haitians have emigrated, such as New Orleans. *Vodu* is an African word meaning spirit or god. The black magic of voodoo sorcerers allegedly consists of various poisons (perhaps that of the puffer fish) which immobilize a person for days, as well as hallucinogens administered upon revival. The result is a brain damaged creature used by the sorcerers as slaves, viz., the zombies. The zombie is not to be confused with the *zombie astral*, whose **soul** (*ti-bon-ange*) is controlled by the sorcerer.



It is quite understandable that a religion practiced under slavery would emphasize evil spirits. It is a cruel irony that some in the religion would evolve to worship at evil's altar and engage in practices which not only enslave others but keep the community in line from fear of being turned into a zombie/slave.

Many people are skeptical of the existence of zombies, which I take to mean they are skeptical that a dead person could be revived with or without retaining his or her "soul" or "self-consciousness" or "mind." Once you are dead, you are dead forever. For those who don't believe a person has a soul, death is not the separation of the body from the soul, but the end of life and consciousness. The voodoo zombie is not a dead person, but a living person who has been brain damaged.

There is another kind of zombie, however: the philosophical zombie. A philosophical zombie (p-zombie, for short) would be a human body without consciousness which would nevertheless behave like a human body with consciousness. To some philosophers (e.g., [Daniel Dennett](#)) this is a contradictory notion and thus an impossible conception. If it behaves like a person and is indistinguishable from a person, then it *is* a person. Other philosophers (e.g. Todd Moody and [David Chalmers](#)) argue that a p-zombie would be distinguishable from a person even though indistinguishable from a *conscious* person. It is distinguishable, say these philosophers, because it is stipulated that it is not conscious even though it is indistinguishable from a conscious being. In case you are wondering why philosophers would debate whether it is possible to conceive of a p-zombie, it is because some philosophers do not believe or do not want to believe that consciousness can

be reduced to a set of materialistic functions. Important metaphysical and ethical issues seem to hinge on whether there can be p-zombies. Can machines be conscious? If we created a machine which was indistinguishable from a human person, would our artificial creation be a "person" with all the rights and duties of natural persons? To the p-zombie advocates, consciousness is more than brain processes and neurological functions. No adequate account of consciousness will ever be produced that is "reductionist," i.e., completely materialistic.

I think it is possible to conceive of a machine which "perceives" without being aware of perceiving. In fact, they already exist: motion detectors, touch screens, tape recorders, smoke alarms, certain robots. An android which could process visual, auditory, tactile, olfactory and gustatory input but which would lack self-consciousness, i.e., would not be aware of perceiving anything, is conceivable. We can even conceive of such machines resembling humans in the flesh. How would we distinguish such automata from persons? The same way we do now: by the imperfect and fallible methods of conversation and observation. But that is not what would make the two distinct; self-consciousness or the lack of it would distinguish the automata from persons. "Visual perception" by a motion detector is unlike visual perception by a person just because of the difference in awareness of perception, i.e., self-consciousness. A smoke detector might "smell" certain chemicals, but it does not process odors the way a person does. In my view, the only conceivable p-zombie would be a machine which perceives but has no awareness of perceiving, i.e., no self-consciousness. Such machines are essentially distinct from conscious persons.

For what it's worth, I side with Dennett and those who think that the concept of the p-zombie is a logical absurdity. If the "zombie" exhibits all the symptoms of consciousness, then the "zombie" is not a zombie; for to exhibit all the symptoms of consciousness is to have consciousness, which the zombie is denied by definition.

Anyway, this reminds me of a story by Raymond Smullyan, the great logician and paradoxer. A man wants to commit suicide but does not want to cause his family any grief. He finds out about an elixir he can take which will kill him, i.e., separate his soul from his body, but leave his body intact to wake up, go to work, play with the kids, keep the wife satisfied and bring home the bacon. But before he takes the elixir, a well-intentioned friend sneaks in during the night and injects his suicidal friend with the stuff, thereby killing him, i.e., releasing his soul. The man wakes up and doesn't know he's dead (i.e., that he has no soul), so he takes the elixir. He can't kill himself, since he's already dead. But he thinks he can kill himself and become a p-zombie. However, he is already a p-zombie. Question: if the p-zombie can't tell the difference between a real person and a p-zombie, why would we think that we real persons could tell the difference? In fact, since the conception of the "soul" makes absolutely no difference in either the nature of a person or a p-zombie, the concept of the "soul" is superfluous. If persons are indistinguishable from

p-zombies then they are not two distinct concepts, but one concept manipulated by language to mislead us into thinking there are two distinct concepts here.

As to the ethical questions regarding how we should treat androids which are behaviorally indistinguishable from natural persons, I think that if we stipulate that such creatures are persons with rights, then they will be persons; otherwise, they will not be persons. The concept of a person is not a matter of discovery, but of stipulation. I would argue, also, that the same is true of the concept of "soul." But it is not true of the concept of "consciousness": anyone who is conscious should be able to tell the difference between a dead body and a living person. Dead bodies which act like persons, and bodiless souls which perceive like conscious persons, exist only in the movies or in the minds of certain philosophers and other fantasy writers.

Personally, I would argue that self-conscious androids should be granted the status of persons on the grounds that the distinction between being synthetic or natural is insignificant. I have a feeling that believers in souls would disagree and would justify creating a race of androids to serve as slaves and to be treated as things not persons.

further reading

- [West African Dahomean Vodoun](#)
- [Vodou](#) by Mambo Racine Sans Bout
- [Venerable Voodoo](#)
- [The Puffer Fish Website](#)
- [The Unimagined Preposterousness of Zombies](#) by Daniel Dennett
- [Zombies on the web](#): compiled by David Chalmers
- ["Self-Ascription Without Qualia: A Case-Study"](#) by David Chalmers
- ["In Defense of Impenetrable Zombies"](#) by Selmer Bringsjord
- ["Zombies and the Function of Consciousness"](#) by Owen Flanagan

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[Davis, Wade. *Passage of darkness : the ethnobiology of the Haitian zombie*](#) (Chapel Hill : University of North Carolina Press, 1988).

[Hofstadter, Douglas R. and Daniel C. Dennett *The mind's I: fantasies and reflections on self and soul*](#) (New York : Basic Books, 1981).

[Ryle, Gilbert. *The Concept of Mind*](#) (New York: Barnes and Noble: 1949).

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[Sacks, Oliver W. *The man who mistook his wife for a hat and other clinical tales*](#) (New York : Summit Books, 1985).

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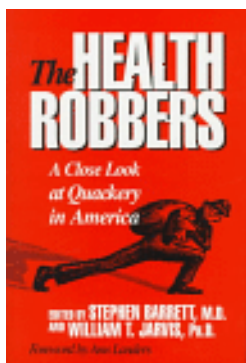
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[acupuncture useless
in treating cocaine
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acupuncture

...I bet when they go in for a root canal the only needle they want to see is a shot of novocaine. --Cecil Adams

Acupuncture is a traditional Chinese medical technique for manipulating [chi](#) (ch'i or qi) in order to balance the opposing forces of [yin and yang](#). Chi, an alleged "energy" which permeates all things, is believed to flow through the body along 14 main pathways called meridians. When yin and yang are in harmony, chi flows freely within the body and a person is healthy. When a person is sick, diseased, or injured it is believed that there is an obstruction of chi along one of the meridians. Acupuncture consists of inserting needles through particular points on the body, allegedly removing unhealthy obstructions of chi and thereby restoring the distribution of yin and yang. Sometimes the needles are twirled, heated, or even stimulated with weak electrical current, ultrasound or certain wavelengths of light. But no matter how it is done, scientific research over the past twenty years has failed to demonstrate that acupuncture is effective against any disease.

A variation of traditional acupuncture is called [auriculotherapy or ear acupuncture](#). It is a method of diagnosis and treatment based on the unsubstantiated belief that the ear is the map of the bodily organs. A problem with an organ such as the liver is to be treated by sticking a needle into a certain point on the ear which is supposed to be the corresponding points for that organ. Similar notions about a part of the body being an organ map are held by [iridologists](#) (the iris is the map of the body) and [reflexologists](#) (the foot is the map of the body). A variation of auriculotherapy is staplepuncture, a method of treatment which puts staples at key points on the ear hoping to do such wonderful things as help people stop smoking. There is no supportive scientific evidence for any of these theories or practices.

Acupuncture has been used in China for more than 4,000 years to alleviate pain and cure disease. Traditional Chinese medicine is not based upon knowledge of modern physiology, biochemistry, nutrition, anatomy or any of the known mechanisms of healing. Nor is it based on knowledge of cell chemistry, blood circulation, nerve function, or the existence of hormones or other biochemical substances. There is no correlation between the meridians used in traditional Chinese medicine and the actual layout of the organs and nerves in the human body. The National Council for Reliable Health Information (NCRHI) notes that of the 46 medical journals published by the Chinese Medical Association, none of them is devoted to acupuncture or other traditional Chinese medical practices. (NCRHI was formerly known as The National Council Against Health Fraud, Inc. It is a private nonprofit, voluntary health agency that focuses upon health misinformation, fraud, and quackery as public health problems.) Nevertheless, it is estimated that somewhere between 10 and 15 million Americans spend approximately \$500

million a year on acupuncture for everything from relieving pain to treating drug addiction to fighting AIDS.

The UCLA medical schools has one of the largest acupuncture training courses in the United States for licensed physicians. The 200-hour program teaches nearly 600 physicians a year. According to the [American Academy of Medical Acupuncture](#), about 4,000 U.S. physicians have training in acupuncture.

Despite a lack of scientific support, acupuncture is used in the treatment of depression, allergies, asthma, arthritis, bladder and kidney problems, constipation, diarrhea, colds, flu, bronchitis, dizziness, smoking, fatigue, gynecologic disorders, headaches, migraines, paralysis, high blood pressure, PMS, sciatica, sexual dysfunction, stress, stroke, tendonitis and vision problems. Thus, it seems that while China is moving forward in the scientific treatment of illness and disease, many in America and other parts of the world are moving backward, looking for metaphysical answers to their physical problems.

In March, 1996, the Federal Drug Administration (FDA) classified acupuncture needles as medical devices for general use by trained professionals. Until then, acupuncture needles had been classified as Class III medical devices, meaning their safety and usefulness was so uncertain that they could only be used in approved research projects. Because of that "experimental" status, many insurance companies, as well as Medicare and Medicaid, had refused to cover acupuncture. This new designation has meant both more practice of acupuncture and more research being done using needles. It also means that insurance companies may not be able to avoid covering useless or highly questionable acupuncture treatments for a variety of ailments. Nevertheless, Wayne B. Jonas, director of the Office of Alternative Medicine at the National Institutes of Health in Bethesda, MD, has said that the reclassification of acupuncture needles is "a very wise and logical decision". The Office of Alternative Medicine is very supportive (i.e. willing to spend good amounts of tax dollars) on new studies of the effectiveness of acupuncture. However, because of the nature of acupuncture, what will be tested in America and other western countries, will not be acupuncture, but something much more narrow. We will be testing the effectiveness of sticking needles into muscles. If doing this lowers blood pressure, for example, it will not be a validation of acupuncture because traditional Chinese acupuncture is not a scientific theory, but a metaphysical one. And metaphysical theories can't be empirically tested. How a physical needle affects a metaphysical entity such as chi is not likely to be addressed by those testing acupuncture. Of course, the positive side of this is that traditional acupuncture can't be disproved, either. There is a perfect harmony here between proof and disproof: each is impossible.

Perhaps the most frequently offered defense of acupuncture by its defenders

in both the East and West is the pragmatic defense: acupuncture works! What does that really mean? It certainly does not mean that sticking needles into one's body opens up blocked chi. At most, it means that it relieves some medical burden. The NCAHF has issued a position paper which asserts that "Research during the past twenty years has failed to demonstrate that acupuncture is effective against any disease" and that "the perceived effects of acupuncture are probably due to a combination of expectation, suggestion, counter-irritation, operant conditioning, and other psychological mechanisms...." In short, most of the perceived beneficial effects of acupuncture are probably due to the power of suggestion and the [placebo effect](#).

The most common claim of success by acupuncture advocates is in the area of pain control. Studies have shown that many acupuncture points are more richly supplied with nerve endings than are the surrounding skin areas. There is some research which indicates sticking needles into certain points affects the nervous system and stimulates the body's production of such natural painkilling chemicals as endorphins and enkephalins, and triggers the release of certain neural hormones including serotonin. Another theory suggests that acupuncture blocks the transmission of pain impulses from parts of the body to the central nervous system. These theories regarding chemical stimulation and blockage of nerve signals are empirically testable. They are couched in terms of the western scientific view of the body's anatomical and neurological system. Even here, however, most of the evidence for the effectiveness of acupuncture is identical to the majority of evidence we have for any so-called "alternative" health practice: it is mainly anecdotal. Unfortunately, for every anecdote of someone whose pain was relieved by acupuncture there is another anecdote of someone whose pain was not relieved by acupuncture. For some, the relief is real but short-lived. The treatment is akin to anesthesia. The patient has to be assisted with walking afterwards, driven home, feels good for awhile, and then the pain returns within a day or two. All we know for sure right now is that sticking needles in people at various traditional acupuncture points often seems to be effective in alleviating pain. However, most pain researchers agree that 30% to 35% of subjects' pain improves from suggestion or the placebo effect no matter what treatment is used.

There are other difficulties which face any study of pain. Not only is pain measurement entirely subjective, traditional acupuncturists evaluate success of treatment almost entirely subjectively, relying on their own observations and reports from patients, rather than objective laboratory tests. Furthermore, many individuals who swear by acupuncture (or [therapeutic touch](#), [reiki](#), [iridology](#), [meditation](#), [mineral supplements](#), etc.) often make several changes in their lives at once, thereby making it difficult to isolate significant causal factors in a [control study](#).

If control studies show that sticking needles into people really does help drug addicts or cure AIDS, will acupuncturists claim vindication? Will they say

that chi flows along the same paths as the blood and nerve impulses, that there is a parallel universe to the physical one, a sort of pre-established harmony between chi/yin/yang and the physical body? Theoretically, whatever is demonstrated regarding the stimulation of endorphins, for example, may be claimed to be also due to chi, despite the uselessness and superfluousness of the theory. But what happens if it turns out that sticking needles into people doesn't lower high blood pressure or cure bronchitis? Will that be taken as proof that chi is a chimera?

Some of the acupuncture studies supported by the Office of Alternative Medicine at the National Institutes of Health try to mimic traditional control group studies, but no control study can test for the presence of chi, yin, yang or any other metaphysical entity. Some studies have been tried where patients were randomly divided into those who would receive treatment with acupuncture and those who would receive "sham acupuncture." The latter treatment consisted of acupuncture needles being inserted at the "wrong" points (i.e., not one of the 500 traditional points). It seems very unwise to compare people stuck with a needle in a "right" point versus a "wrong" point, unless you already know that sticking people can help alleviate pain and you are just trying to find the right place to stick them. The false point stickings were said to be analogous to a placebo treatment, but are they? If better results are achieved by sticking the traditional points, does that confirm traditional acupuncture? Of course not. What such a result would show is that after 4,000 years the Chinese had figured out the best places to stick to relieve pain, etc. But no such study will reveal if chi was unblocked or if yin and yang are in or out of harmony. Control studies using objective measurements of treatment success could determine, however, how much of the success of acupuncture is due to nothing more than subjective assessment by interested parties. Such studies could also determine whether any effects of acupuncture are short-term or long-term.

Finally, is any harm being done to people who are undergoing acupuncture? Well, besides those who are not being treated for diseases or injuries which modern medicine could treat effectively, there are some other risks. There have been some reports of lung and bladder punctures, some broken needles, and some allergic reactions to needles containing substances other than surgical steel. Acupuncture may be harmful to the fetus in early pregnancy since it may stimulate the production of adrenocorticotrophic hormone (ACTH) and oxytocin which affect labor. Then of course, there is always the possibility of infection from unsterilized needles.

See related entries on [alternative health practices](#), [chi control study](#), [iridology](#), [placebo effect](#), [reflexology](#), [therapeutic touch](#), and [reiki](#). and [yin-yang](#).

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 [abracadabra](#)

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[AIDS myths persist among Chinese Survey: Most don't know HIV causes the disease](#) 7/12/02

chi (ch'i or qi)

Ch'i or *qi* (pronounced "chee" and henceforth spelled "*chi*") is the Chinese word used to describe "the natural energy of the Universe." This energy, though called "natural," is spiritual or supernatural, and is part of a metaphysical, not an empirical, belief system. *Chi* is thought to permeate all things, including the human body. Such metaphysical systems are generally referred to as types of *vitalism*. One of the key concepts related to *chi* is the concept of *harmony*. Trouble, whether in the universe or in the body, is a function of disharmony, of things being out of balance and in need of restoration to equilibrium.

Proponents claim to prove the existence and power of *chi* by healing people with [acupuncture](#) or [chi kung](#) (qi gong), by doing magic tricks such as breaking a chopstick with the edge of a piece of paper or resuscitating a "dead" fly, or by martial arts stunts like breaking a brick with a bare hand or foot. When examined under controlled conditions, however, the seemingly paranormal or supernatural feats of masters of *chi* turn out to be quite ordinary feats of [magic, deception, or natural powers](#).

Vitalism is a popular philosophy in many cultures. Thus, *chi* has many counterparts: [prana](#) (India and [therapeutic touch](#)), [ki](#) (Japan); Wilhelm Reich's [orgone](#), Mesmer's [animal magnetism](#), [Bergson's élan vital](#) (vital force), to name just a few. The concept is very popular among New Age thinking, where it generally goes by the name of *energy*, though the concept bears no resemblance to the concept as used by physicists.

See **related entries** on the [I Ching](#), [feng shui](#), [koro](#), and [yin/yang](#).

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 [chelation therapy](#)

[Chi Kung](#) 

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yin and yang

According to traditional Chinese philosophy, yin and yang are the two primal cosmic principles of the universe. Yin is the passive, female principle. Yang is the active, masculine principle.



According to legend, the Chinese emperor Fu Hsi claimed that the best state for everything in the universe is a state of harmony represented by a balance of yin and yang. Unsurprisingly, legend has it that, according to Fu Hsi, true harmony requires yang to be dominant. It's just the nature of things.

In classical Chinese, yin and yang refer to the shady and sunny sides of a hill or valley.

See **related entries** on [acupuncture](#), [chi](#), the [I Ching](#), [koro](#) and [macrobiotics](#).

further reading

- [Where does the Yin Yang Symbol come from?](#)

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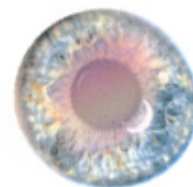


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[Eye-opening success for iris scans \(New Scientist\) August 8, 2001](#)

iridology

Iridology is the study of the iris of the eye in order to diagnose disease. Iridology is based on the questionable assumption that every organ in the human body has a corresponding location within the iris and that one can determine whether an organ is healthy or diseased by examining the iris rather than the organ itself. Iridology is likely to be practiced by a [naturopath](#), a [chiropractor](#), a [homeopath](#) or an [acupuncturist](#), rather than by a traditional medical doctor. [The Canadian Institute of Iridology](#) says that "Iridology is one of the fastest growing fields in [alternative health care](#) in Canada today."



Traditional physicians see the [iris](#) as being the part of the eye that regulates the amount of light entering. The iris is the colored part of the eye which has a contractile opening in the center, the pupil. The pupil admits light to the lens. The lens brings the light rays to a focus, forming an image upon the retina where the light falls upon the rods and cones, causing them to stimulate the optic nerve and transmit visual impressions to the brain. Traditional physicians also recognize that certain symptoms of non-ocular disease can be detected by an eye exam. They may even recognize and find amusing that *Iris* was the ancient Greek goddess who personified the rainbow.

Iridology was the invention of Ignatz Von Peczely, a 19th-century Hungarian physician. The story is that he got the idea for this novel diagnostic tool when he saw a similarity between the eyes of a man he was treating for a broken leg and the eyes of an owl whose leg Von Peczely had broken years earlier. The striking similarity consisted of a dark streak. The hunt was on. Von Peczely then went on to document similarities in eye markings and illnesses in his patients. Other wise men finished off the map of the eye. A typical map divides up the eye into sections, using the image of a clock face as a base. So, for example, if you want to know the condition of a patient's thyroid gland, you need not touch the patient to feel for any enlargement of the gland. Nor do you need to do any tests of the gland itself. All you need to do is look in [the iris of the right eye](#) at about half two and [the iris of the left eye](#) at about half nine. Discolorations, flecks, streaks, etc. in those parts of the eyes are all you need concern yourself with, if it is the condition of the thyroid you wish to know. For problems with the vagina or penis, look at 5 o'clock in the right eye. And so on. An iridologist can do an examination with nothing more than an iridology map, a magnifying glass and a flashlight.

If Von Peczely's reasoning is typical, we can surmise that he and other iridologists deceived themselves by looking for and finding correlations between eye markings and illness. They were working with vague notions of

"markings" and "illness." Diseases may not have been precisely or accurately diagnosed in many cases. They were able to validate iridology by finding many correlations that in fact were not established as causal relationships by rigorously defined controlled studies. Some of their correlations may be accurate, but many are undoubtedly bogus, due to very broad interpretations of "markings" and "disease." They found patterns where in fact there are no patterns. They misinterpreted data and gave extraordinary significance to confirmations, while ignoring or not seeking disconfirmations. Many of their confirmations may have been merely matters of [self-validation](#). We have no way of knowing how much the power of suggestion played in their patients' illnesses. Many diagnoses were probably wrong, but no objective tests were done to check out the validity of the diagnoses. Some diagnoses may have been correct but the iridologists may have been using other signs besides eye markings to make their diagnoses. One thing they did not do were [clearly defined, controlled, double-blind, randomized, repeatable, publicly presented studies](#). Had they done proper scientific testing of their claims, they would have been able to validate or invalidate iridology once and for all. Similar lack of rigorous scientific testing has led to [self-deception](#) in other similar fields such as [reflexology](#) and [ear acupuncture](#).

With that said, it should not be assumed that the condition of the eye is an irrelevant diagnostic tool for non-eye diseases. Ophthalmologists and optometrists can identify non-ocular health problems by examining the eye. If a problem is suspected, these doctors then refer their patients to an appropriate specialist for further examination. However, recognizing symptoms of disease by looking in the eyes is *not* what iridology is about. In fact, when iridologists have been tested to see if they could distinguish healthy from sick people by looking at slides of their eyes, they have failed. In a study published in the *Journal of the American Medical Association* (1979, vol. 242, 1385-1387), three iridologists incorrectly identified nearly all of the study slides of the irises of 143 healthy and diseased people. "In fact, they often read the irises of the sickest people as being healthy and vice versa. They did not even agree with each other." Similar results involving five Dutch iridologists were published in the *British Medical Journal* (1988, vol. 297, 1578-1581) ([Lisa Niebergall, M.D.](#)).

Iridology goes way beyond the claim that the eyes often provide signs of disease. Iridologists maintain that each organ has a counterpart in the eye and that you can determine the state of the organ's health by looking at a particular section of the eye. Evidence for this belief is sorely lacking.

What is most peculiar about the iris is that, on the one hand, each iris is absolutely unique and unchangeable, so much so that many claim that the iris is a better identifier of an individual than fingerprints. On the other hand, each iris allegedly changes with each change in state of each bodily organ. This would make the iris both immutable and in a state of constant flux, a magical union of the worlds of Parmenides and Heraclitus.

See **related entries** on [acupuncture](#), [alternative health practices](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [pathological science](#), [the placebo effect](#), [the post hoc fallacy](#), [reflexology](#), and [selective thinking](#).

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[jamais vu](#)



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reflexology

The massaging of feet to diagnose and cure disease. In the 1930s, Eunice Ingham (1889-1974) applied Occam's razor to Dr. William Fitzgerald's teachings in *Zone Therapy* (1917) and dubbed the result reflexology. She eliminated all of Fitzgerald's [energy](#) zones--he said there are ten such zones in the body--except for the feet. Reflexology is based on the unsubstantiated belief that each part of each foot is a mirror site for a part of the body. The big toe, for example, is considered a reflex area for the head. As [iridology](#) maps the body with irises, reflexology maps the body with the feet, the right foot corresponding to the right side of the body and the left foot corresponding to the left side of the body. Because the whole body is represented in the feet, reflexologists consider themselves to be [holistic](#) health practitioners, not foot doctors. Allegedly, the ancient Chinese and Egyptians practiced reflexology, and it is still very popular in [Europe](#).

Practitioners of reflexology claim that they can cure a variety of aches and pains by massaging the correct reflex points on the foot. It is said by those who practice it that reflexology can cure migraine headaches and relieve sinus problems. It can restore harmony to hormonal imbalances and cure breathing disorders and digestive problems. If you have a back problem, a massage on the right spot on the right foot (which might be the left foot in some cases) can alleviate your suffering. If you suffer from circulatory problems or have a lot of tension and stress, reflexology promises relief.

There are many variations of reflexology and many names for these variations, including Zone Therapy, Vacuflex, and Vita Flex. Some chiropodists are also reflexologists, although there is no necessary connection between the two. Some reflexologists deny that they diagnose or treat diseases, but claim they can restore "balance" to one's "energy."

Reflexology is often combined with other therapies and practices, such as acupressure, shiatsu, yoga, and tai chi, and it often involves the hands and other body parts or zones, not just the feet. Reflexology seems to be a variation of acupressure, with its notion that there are correspondences between special pressure points and the flow of [chi](#) to bodily organs. Polarity therapy, a variant of reflexology, replaces the [yin and yang](#) opposition with the positive/negative energy charges of the sides of the body (the right side is positively charged); [massage](#) allegedly restores the proper balance of energy. In polarity therapy, the foot is the site of just one of many key massage points.

One reason foot massage may be so pleasurable and is associated with significant improvement in mood is that the area of the brain that connects to

the foot is adjacent to the area that connects to the genitals. There may be some neuronal overlapping. Neuroscientist V.S. Ramachandran writes of a person whose leg was amputated and who experienced orgasms in his phantom foot (1998: 36-37). "The genitals are right next to the foot in the body's brain maps," he notes, and speculates that this fact may account for foot fetishes.

See related entries on [alternative health practices](#) and [massage therapy](#).

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["Against Depression, a Sugar Pill Is Hard to Beat Placebos Improve Mood, Change Brain Chemistry in Majority of Trials of Antidepressants" by Shankar Vedantam Washington Post](#)

the placebo effect

The placebo effect is the measurable, observable, or felt improvement in health not attributable to treatment. This effect is believed by many people to be due to the placebo itself in some mysterious way. A placebo (Latin for “I shall please”) is a medication or treatment believed by the administrator of the treatment to be inert or innocuous. Placebos may be sugar pills or starch pills. Even “fake” surgery and “fake” psychotherapy are considered placebos.

Researchers and medical doctors sometimes give placebos to patients. Anecdotal evidence for the placebo effect is garnered in this way. Those who believe there is scientific evidence for the placebo effect point to clinical studies, many of which use a [control](#) group treated with a placebo. Why an inert substance, or a fake surgery or therapy, would be effective is not known.

the psychological theory: it's all in your mind

Some believe the placebo effect is *psychological*, due to a *belief* in the treatment or to a subjective *feeling* of improvement. Irving Kirsch, a psychologist at the University of Connecticut, believes that the effectiveness of Prozac and similar drugs may be attributed almost entirely to the placebo effect. He and Guy Sapirstein analyzed 19 clinical trials of antidepressants and concluded that the expectation of improvement, not adjustments in brain chemistry, accounted for 75 percent of the drugs' effectiveness ([Kirsch 1998](#)).

"The critical factor," says Kirsch, "is our beliefs about what's going to happen to us. You don't have to rely on drugs to see profound transformation." In an earlier study, [Sapirstein analyzed 39 studies](#), done between 1974 and 1995, of depressed patients treated with drugs, psychotherapy, or a combination of both. He found that 50 percent of the drug effect is due to the placebo response.

A person's beliefs and hopes about a treatment, combined with their suggestibility, may have a significant biochemical effect. Sensory experience and thoughts can affect neurochemistry. The body's neurochemical system affects and is affected by other biochemical systems, including the hormonal and immune systems. Thus, it is consistent with current knowledge that a person's hopeful attitude and beliefs may be very important to their physical well-being and recovery from injury or illness.

However, it may be that much of the placebo effect is not a matter of mind over molecules, but of mind over behavior. A part of the behavior of a "sick" person is learned. So is part of the behavior of a person in pain. In short, there is a certain amount of role-playing by ill or hurt people. Role-playing is not the same as faking or malingering. The behavior of sick or injured persons is

socially and culturally based to some extent. The placebo effect may be a measurement of changed behavior affected by a belief in the treatment. The changed behavior includes a change in attitude, in what one says about how one feels, and how one acts. It may also affect one's body chemistry.

The psychological explanation seems to be the one most commonly believed. Perhaps this is why many people are dismayed when they are told that the effective drug they are taking is a placebo. This makes them think that their problem is "all in their mind" and that there is really nothing wrong with them. Yet, there are too many studies which have found objective improvements in health from placebos to support the notion that the placebo effect is entirely psychological.

Doctors in one study successfully eliminated warts by painting them with a brightly colored, inert dye and promising patients the warts would be gone when the color wore off. In a study of asthmatics, researchers found that they could produce dilation of the airways by simply telling people they were inhaling a bronchodilator, even when they weren't. Patients suffering pain after wisdom-tooth extraction got just as much relief from a fake application of ultrasound as from a real one, so long as both patient and therapist thought the machine was on. Fifty-two percent of the colitis patients treated with placebo in 11 different trials reported feeling better -- and 50 percent of the inflamed intestines actually looked better when assessed with a sigmoidoscope ("The Placebo Prescription" by Margaret Talbot, *New York Times Magazine*, January 9, 2000).*

It is unlikely that such effects are purely psychological. But it is not necessarily the case that the placebo is actually effective in such cases.

the nature-taking-its-course theory

Some believe that at least part of the placebo effect is due to an illness or injury taking its natural course. We often heal spontaneously if we do nothing at all to treat an illness or injury. Furthermore, many disorders, pains and illnesses, wax and wane. What is measured as the placebo effect could be, in many cases, the measurement of natural [regression](#). In short, the placebo may be given credit that is due to Nature.

However, spontaneous healing and spontaneous remission of disease cannot explain all the healing or improvement that takes place because of placebos. People who are given no treatment at all often do not do as well as those given placebos or real medicine and treatment.

the process-of-treatment theory

Another theory gaining popularity is that a process of treatment that involves showing attention, care, affection, etc., to the patient/subject, a process that is encouraging and hopeful, may itself trigger physical reactions in the body which promote healing. According to Dr. Walter A. Brown, a psychiatrist at Brown University,

there is certainly data that suggest that just being in the healing situation accomplishes something. Depressed patients who are merely put on a waiting list for treatment do not do as well as those given placebos. And -- this is very telling, I think -- when placebos are given for pain management, the course of pain relief follows what you would get with an active drug. The peak relief comes about an hour after it's administered, as it does with the real drug, and so on. If placebo analgesia was the equivalent of giving nothing, you'd expect a more random pattern ("The Placebo Prescription" by Margaret Talbot, *New York Times Magazine*, January 9, 2000).*

Dr. Brown and others believe that the placebo effect is mainly or purely *physical* and due to physical changes which promote healing or feeling better. It is assumed that the physical changes are not caused by the placebo itself. So, what is the explanatory mechanism for the placebo effect? Some think it is the *process* of administering it. It is thought that the touching, the caring, the attention, and other interpersonal communication that is part of the controlled study process (or the therapeutic setting), along with the hopefulness and encouragement provided by the experimenter/healer, affect the mood of the subject, which in turn triggers physical changes such as release of endorphins. The process reduces stress by providing hope or reducing uncertainty about what treatment to take or what the outcome will be. The reduction in stress prevents or slows down further harmful physical changes from occurring.

The process-of-treatment hypothesis would explain how inert [homeopathic](#) remedies and the questionable therapies of many "alternative" health practitioners are often effective or thought to be effective. It would also explain why pills or procedures used by conventional medicine work until they are shown to be worthless.

Forty years ago, a young Seattle cardiologist named Leonard Cobb conducted a unique trial of a procedure then commonly used for angina, in which doctors made small incisions in the chest and tied knots in two arteries to try to increase blood flow to the heart. It was a popular technique - - 90 percent of patients reported that it helped -- but when Cobb compared it with placebo surgery in which he made

incisions but did not tie off the arteries, the sham operations proved just as successful. The procedure, known as internal mammary ligation, was soon abandoned ("The Placebo Prescription" by Margaret Talbot, *New York Times Magazine*, January 9, 2000).*

Of course, *spontaneous healing* or [regression](#) can also adequately explain why homeopathic remedies might appear to be effective. Whether the placebo effect is mainly psychological, misunderstood spontaneous healing, due to showing care and attention, or due to some combination of all three may not be known with complete confidence.

the powerful placebo challenged

The powerful effect of the placebo is not in doubt. [It should be](#), however, according to Danish researchers Asbjorn Hrobjartsson and Peter C. Gotzsche. Their meta-study of 114 studies involving placebos found "little evidence in general that placebos had powerful clinical effects...[and]...compared with no treatment, placebo had no significant effect on binary outcomes, regardless of whether these outcomes were subjective or objective. For the trials with continuous outcomes, placebo had a beneficial effect, but the effect decreased with increasing sample size, indicating a possible bias related to the effects of small trials ("Is the Placebo Powerless? An Analysis of Clinical Trials Comparing Placebo with No Treatment," *The New England Journal of Medicine*, May 24, 2001 (Vol. 344, No. 21))."

According to Dr. Hrobjartsson, professor of medical philosophy and research methodology at University of Copenhagen, "The high levels of placebo effect which have been repeatedly reported in many articles, in our mind are the result of flawed research methodology."* This claim flies in the face of more than fifty years of research. At the very least, we can expect to see more rigorously designed research projects trying to disprove Hrobjartsson and Gotzsche.

the origin of the idea

The idea of the powerful placebo in modern times originated with H. K. Beecher. He evaluated over two dozen studies and calculated that about one-third of those in the studies improved due to the placebo effect ("The Powerful Placebo," 1955). Other studies calculate the placebo effect as being even greater than Beecher claimed. For example, studies have shown that placebos are effective in 50 or 60 percent of subjects with certain conditions, e.g., "pain, depression, some heart ailments, gastric ulcers and other stomach complaints."* And, as effective as the new psychotropic drugs seem to be in the treatment of various brain disorders, [some researchers maintain](#) that there is not adequate evidence from studies to prove that the new drugs are more effective than placebos.

Placebos have even been shown to cause [unpleasant side-effects](#). Dermatitis medicamentosa and angioneurotic edema have resulted from placebo therapy, according to [Dodes](#). There are even reports of people becoming [addicted to placebos](#).

the ethical dilemma

The power of the placebo effect has led to an ethical dilemma. One should not deceive other people, but one should relieve the pain and suffering of one's patients. Should one use deception to benefit one's patients? Is it unethical for a doctor to knowingly prescribe a placebo without informing the patient? If informing the patient reduces the effectiveness of the placebo, is some sort of deception warranted in order to benefit the patient? Some doctors think it is justified to use a placebo in those types of cases where a strong placebo effect has been shown and where distress is an aggravating factor.* Others think it is always wrong to deceive the patient and that informed consent requires that the patient be told that a treatment is a placebo treatment. Others, especially "alternative" medicine practitioners, don't even want to know whether a treatment is a placebo or not. Their attitude is that as long as the treatment is effective, who cares if it a placebo? Of course, if the placebo effect is an illusion, then another ethical dilemma arises: should placebos be given if it is known that deception does not really reduce pain or aid in the cure of anything?

are placebos dangerous?

While skeptics may reject faith, prayer and "alternative" medical practices such as [bioharmonics](#), [chiropractic](#) and [homeopathy](#), such practices may not be without their salutary effects. Clearly, they can't cure cancer or repair a punctured lung, and they might not even prolong life by giving hope and relieving distress as is sometimes thought. But administering useless therapies does involve interacting with the patient in a caring, attentive way, and this can provide some measure of comfort. However, to those who say "what difference does it make *why* something works, as long as it seems to work" I reply that it is likely that there is something which works even better, something for the other two-thirds or one-half of humanity who, for whatever reason, cannot be cured or helped by placebos or spontaneous healing or natural regression of their pain. Furthermore, placebos may not always be beneficial or harmless. In addition to adverse side-effects, mentioned above, John Dodes notes that

Patients can become dependent on nonscientific practitioners who employ placebo therapies. Such patients may be led to believe they're suffering from imagined "reactive" hypoglycemia, nonexistent allergies and yeast infections, dental filling amalgam "toxicity," or that they're

under the power of Qi or extraterrestrials. And patients can be led to believe that diseases are only amenable to a specific type of treatment from a specific practitioner ([The Mysterious Placebo](#) by John E. Dodes, *Skeptical Inquirer*, Jan/Feb 1997).

In other words, the placebo can be an open door to quackery.

See **related entries** on [confirmation bias](#), [control study](#), [communal reinforcement](#), [nocebo](#), [Occam's razor](#), [the post hoc fallacy](#), [the regressive fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), and [wishful thinking](#).

For examples of beliefs deeply affected by the placebo effect see the following:

[acupuncture](#)
["alternative" health practices](#)
[aromatherapy](#)
[bioharmonics](#)
[crystal power](#)
[homeopathy](#) and
[reflexology](#)

further reading

- [The Mysterious Placebo](#) by John E. Dodes
- [The placebo effect is the healing force of nature](#) by G. Zajicek
- [The Mysterious Placebo Effect](#) by Carol Hart *Modern Drug Discovery* July/August 1999
- Kirsch, Irving, Ph.D. and Guy Sapirstein, Ph.D. ["Listening to Prozac but Hearing Placebo: A Meta-Analysis of Antidepressant Medication"](#) *Prevention & Treatment*, Volume 1, June 1998.
- [The Placebo Prescription](#) - *New York Times Magazine* 1/09/2000
- [Sham Surgery Returns as a Research Tool](#) by Sheryl Gay Stolberg, *New York Times* 4/25/1999
- [Dr. Rentzman's Placebo Page](#)
- ["Placebo Effect Accounts For Fifty Percent Of Improvement In Depressed Patients Taking Antidepressants"](#) by the American Psychological Association
- ["Placebo as Suggestion"](#) by Charles Henderson, Ph.D. (Interesting experiment on subliminal advertising.)

- [Is Prescribing Placebos Ethical? Yes](#) by Kenneth E. Legins

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 [pious fraud](#)

[plant perception](#) 

[SkepDic.com](#)



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["Nursing
irrationality" by
Sarah Glazer in
Spiked Health 11
October 2001](#)

therapeutic touch

Therapeutic touch (TT) is a type of [energy](#) medicine whereby the therapist moves his or her hands over the patient's "energy field," allegedly directing the flow of [chi](#) or [prana](#) so the patient can heal. TT is based on the belief that each living thing has a "life energy field" which extends beyond the surface of the body and generates an [aura](#). This energy field can become unbalanced, misaligned, obstructed, or out of tune. Energy healers think they can feel and manipulate this energy field by making movements that resemble massaging the air a few inches above the surface of the patient's body. Energy healers also think that they can transfer some of their own life energy to the patient. These airy manipulations allegedly restore the energy field to a state of balance or harmony, to a proper alignment, or they unblock a clog in the field or transfer life energy from healer to patient. This restoration of integrity to the field is thought to make it possible for the body to heal itself.

TT has no scientific basis but it does have a history. It was created by a nurse and a [theosophist](#). [Dolores Krieger](#), Ph.D., R.N., and a faculty member at New York University's Division of Nursing began TT in the early 1970s. She was convinced that the palms are [chakras](#) and can channel healing energy. She is the author of *Therapeutic Touch: How to Use Your Hands to Help and to Heal* (1979) and several other books on TT. Dora Kunz, president of the Theosophical Society of America, was her mentor and an [intuitive healer](#). TT is practiced primarily by nurses, though TT is apparently being practiced worldwide by all kinds of "alternative" healers and laypersons.

Practitioners admit that there has never been any scientific detection of a human energy field. This, they say, is because of the inadequacies of our present technology. One with a trained sense, however, is allegedly able to detect the human energy field and assess its integrity. Despite the obvious [metaphysical](#) basis for this [quackery](#), defenders of TT claim it is scientific because it is based on quantum physics. A grant proposal [to study therapeutic touch on burn victims](#) asserts: "Quantum theory states that all of reality is made up of energy fields and that over 99% of the universe is simply space." Another defender claims

The underlying principles upon which this technique is based include acceptance of the Einstein paradigm of a complex, energetic field-like universe (i.e., the existence of a Life energy flowing through and around all of us). Further, if life is characterized by an interchange of various qualities of energy, it can be assumed that any form of obstruction -- either within the organism or between the organism and the

environment -- is contrary to Nature's tendencies and therefore unhealthy. In practicing Therapeutic Touch, one attempts to influence this energy imbalance towards health to restore the integrity of this field. In this way the TT practitioner does not so much "heal" the patient as facilitate the patient's own healing processes, by gently manipulating the body's energy flow and adjusting it as a whole. With the achievement of balance in mind, body and spirit, we have a truly holistic approach (Rebecca Witmer, "Hands that Heal: The Art of Therapeutic Touch," *Healing Arts*, 1995).

Let's carefully examine these claims and the inferences drawn from them. Einstein did not have a [paradigm](#) which included the notion of "a Life energy flowing through and around all of us." He may have written of interchanges of *quantities* of energy. Many physicists have written of such things as transforming mechanical energy into electrical energy, for example, but would the typical physicist understand the expression "life is an interchange of *qualities* of energy"? From this notion Ms. Witmer infers that any form of obstruction within the organism or between the organism and the environment is contrary to Nature's tendencies and therefore unhealthy. This seems like a non sequitur, but she goes on: "if life is characterized by an interchange of various qualities of energy, it can be assumed that any form of obstruction -- either within the organism or between the organism and the environment -- is contrary to Nature's tendencies and therefore unhealthy." This seems like an "alternative" logic using an "alternative" science to support an "alternative" therapy.

It might be true that an obstruction within an organism is contrary to Nature's tendencies, if by that we mean such things as: *blockage of an air passage is unhealthy* or *blocked arteries are unhealthy*. Yet, most rational patients with such blockages would probably want someone to physically unblock the passageway. A rational person would not think that a mystic waving her hands over one's energy field would ever remove any such blockage. On the other hand, for most organisms the environment is mostly obstructions. This may not be healthy, but it is certainly natural. In any case, what does it mean to say that *it is unhealthy to go contrary to Nature's tendencies*? Are the hurricane, the tornado, the volcano, the flood, the lightning bolt and the earthquake *contrary* to Nature's tendencies? How could they be, since they are part of Nature. Is the lion eating the gazelle contrary to Nature's tendencies?

Why so many believers?

One might wonder why a group of otherwise intelligent, highly trained professionals such as nurses would be attracted to something like TT. Ms. Witmer might have the answer. She writes

Those who practice Therapeutic Touch often report reaping benefits for themselves. For example, the ability of TT to reduce burnout in health care professionals has been well-documented.

The TT therapist has powers physicians don't have: secret, mystical powers which only the practitioner can measure. You get a lot of positive feedback. You can't hurt anyone because you're not even touching them, much less invading their body with drugs or surgical instruments. You network and those in your network feed off of each other's enthusiasm. There is a great deal of [communal reinforcement](#). Many patients swear they can feel your good work. You feel revitalized, empowered.

Why do so many *patients* testify to the benefits of therapeutic touch or other bogus therapies such as [homeopathy](#) and [magnet therapy](#)? Some commit the [regressive fallacy](#). Most [testimonials](#) are not followed up. They are based on immediate or early impressions. Both therapist and patient are deceived into thinking a temporary lift, which may be due to expectation, is significant and will last. Or, credit is given to TT when the real causative agent was a concurrent treatment (drugs or surgery, for example). Also, the feelings associated with illness or injury can be quite complex, involving not just pain but various emotions and desires. The patient may be anxious and fearful, or hopeful and optimistic. The intervention of any caring therapist--and those who practice TT are universally admired for their caring attitude--can profoundly affect these feelings. The patient may *feel* better, but the feeling may have nothing to do with being cured or healed. There is scientific evidence that [supportive therapy of breast cancer patients](#) improves mood and pain control, but not longevity (Goodwin 2001). It may be that therapies such as TT have a similar effect on mood, though they do nothing to curtail the illness or disease itself. Elevated mood may be misinterpreted as improved health. The same improvement might have been induced by watching a Buster Keaton movie.

See **related entries** on [acupuncture](#), [aura therapy](#), [Ayurvedic medicine](#), [alternative health practices](#), [confirmation bias](#), [pathological science](#), [pseudoscience](#), [reiki](#), [self-deception](#), and [wishful thinking](#).

further reading

[reader comments](#)

- [Hands Off, Doctor](#) by Howard Fienberg
- ["Therapeutic Touch"](#) by Stephen Barrett, M.D.
- [Quantum Quackery](#) by [Victor J. Stenger](#)

- [A Scientific test of TT done by PhACT Date: 14 November 96](#)
- ["Pentagon's 'Healing Hands' Study,"](#) by John Elliston
- [Rocky Mountain Skeptics on TT](#)
- [The Jama TT Article Critiqued by Carla Selby](#)
- [THERAPEUTIC TOUCH: Healing Therapy or Hoax?](#)
- [Science offers little support for 'energy medicine' ideas](#) by Linda Seebach

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reiki

Reiki (pronounced *ray-key*) is a form of healing through manipulation of *ki*, the Japanese version of [chi](#). *Rei* means spirit in Japanese, so reiki literally means *spirit life force*.

Like their counterparts in traditional Chinese medicine who use [acupuncture](#), as well as their counterparts in the West who use [therapeutic touch](#) (TT), the practitioners of reiki believe that health and disease are a matter of the life force being disrupted. Each believes that the universe is full of energy which cannot be detected by any scientific instruments but which can be felt and manipulated by special people who learn the tricks of the trade. Reiki healers differ from acupuncturists in that they do not try to unblock a person's *ki*, but to channel the *ki* of the universe so that the person heals. The channeling is done with the hands, and, like TT no physical massaging is necessary since *ki* flows through the body of the healer into the patient via the air. The reiki master claims to be able to draw upon the energy of the universe and increase his or her own energy while performing a healing. Reiki healers claim to channel *ki* into "diseased" individuals for "rebalancing." Larry Arnold and Sandra Nevins claim in *The Reiki Handbook* (1992) that reiki is useful for treating brain damage, cancer, diabetes and venereal diseases. If the healing fails, however, it is because the patient is *resisting* the healing energy.

Reiki is very popular among New Age spiritualists, who are very fond of "attunements," "harmonies," and "balances." Reiki apprentice healers pay up to \$10,000 to their masters to become masters themselves. The process involves going through several levels of *attunement*. One must learn which symbols to use, when to call up the universal life force, how to heal an emotional or spiritual illness, and how to heal someone who isn't present.

Reiki was popularized by [Mikao Usui \(1865-1926\)](#). After fasting and meditating for several weeks, he began hallucinating and hearing voices giving him "the keys to healing."

See related entries on [acupuncture](#), [chi](#), [Ch'i Kung \(Qi Gong\)](#) and [therapeutic touch](#).

further reading

[reader comments](#)

- ["Why Bogus Therapies Often Seem to Work"](#) by Barry L. Beyerstein, Ph.D.
- [Reiki](#) by William T. Jarvis, Ph.D. (National Council Against Health Fraud)
- [Reiki FAQ: What Is Reiki?](#)
- [Reiki Links](#)
- [Mystical Medical Alternativism](#), *Skeptical Inquirer*, Sept. 1995.
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 [regressive fallacy](#)

[reincarnation](#) 

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Transcendental Meditation (TM)

"As a student at Maharishi University of Management you discover that when you experience transcendental consciousness, you are experiencing the ocean of consciousness or intelligence, which is at the basis of the life and evolution of the universe."

"Over 500 scientific studies conducted at more than 200 universities and research institutions in 33 countries have documented the benefits of Transcendental Meditation (TM) for mind, body, behavior, and environment." [The Transcendental Meditation (TM) Program at Maharishi University of Management]

An interesting claim, since "transcendental consciousness" is not a scientific concept, but a metaphysical one.

Transcendental Meditation (TM[®]) is a set of Hindu meditation techniques introduced to the western world by Maharishi Mahesh Yogi, dubbed the "giggling guru" because of his habit of constantly giggling during television interviews. TM[®] allegedly brings the practitioner to a special state of consciousness often characterized as "enlightenment" or "bliss." The method involves entertaining a [mantra](#), an allegedly special expression which is often nothing more than the name of a Hindu god. Disciples pay hundreds of dollars for their mantra. They are led to believe that theirs is special and chosen just for them. The claim of uniqueness for the mantra is just one of many questionable claims made by TM[®] leaders.

The TM[®] website claims it is a "program" and that it is "scientifically validated." It is actually a religious business or [cult](#) and its advocates' claim to scientific validation is extremely misleading. One must take with a grain of salt claims such as the following:

The Transcendental Meditation[®] (TM[®]) program of Maharishi Mahesh Yogi is the single most effective technique available for gaining deep relaxation, eliminating stress, promoting health, increasing creativity and intelligence, and attaining inner happiness and fulfillment.*

These exaggerated claims are based mainly on the attempt to deceive people into thinking that any study done anywhere on the benefits of relaxation

techniques validate TM.

The TM[®] movement began in 1956 in India and is now worldwide, claiming more than 5 million followers, though the actual number of TM[®] advocates is probably much smaller. Many know of TM[®] because of the [Beatles](#) and other celebrities like Mia Farrow and Donavan, who hung around at the Maharishi's ashram in the late sixties. It may be that the Beatles found that money and fame weren't all they're made out to be, and like many others they turned to the East for help in finding the happiness and fulfillment they couldn't get from fame and drugs. Many think meditation offers a way to a high higher than any drug and a power higher than all others, the power of self-control. It also has the pleasant side-effect of leaving one feeling relaxed and content, as long as one's guru isn't charging too much for the lessons, financially or psychologically, and isn't constantly harassing you to recruit others into the happy, happy cult.

One of the main appeals of TM[®] has been its claim to be a scientific means to overcoming [stress](#). TM[®] claims to be based on the "Science of Creative Intelligence," in which one may get a [graduate](#) degree at the [Maharishi University of Management](#) (formerly Maharishi International University) in Fairfield, Iowa. MUM offers "a Full Range of Academic Disciplines for Successful Management of All Fields of Life." It is also the basis for a number of [health and beauty](#) products for sale to those who want a perfect body to go with the perfect mind.

TM recruiting literature is full of charts and graphs demonstrating "scientifically" the wonders of TM. Things like metabolic rate, oxygen consumption rate, bodily production of carbon dioxide, hormone production, brain waves, etc. are measured and charted and graphically presented to suggest that TM really takes a person to a new state of consciousness. The truth is that most TM 'scientists' do not do controlled experiments and, in fact, are on par with most [parapsychologists](#) when it comes to experimental design and controls. That is, their work is incompetent, if not fraudulent. Some of [the studies are simply trivial](#): you can get some of the same physiological results by relaxing completely. Though, according to TM advocates, tests have shown that TM produces "neurophysiological signatures that are distinctly different from relaxation and rest." [Judy Stein, personal correspondence] Critics disagree, however, and cite other studies suggesting that TM may be hazardous to your health. For example, a [German study](#) done in 1980 found that three-fourths of 67 long-term transcendental meditators experienced adverse health effects.* One should be cautious in drawing any strong conclusions from this small study, however. TM may attract many people who are stressed out and are seeking relief. Thus, many of those who have physical or psychological problems after meditating may have had them before they started meditating. Thus, for many in the study, meditation may not have *caused* their problems, but *it didn't relieve them*, either.

Probably the least believable claim of TMers is that they can fly--well, not really *fly*, more like *hover*. TM loudly promoted [levitation](#) in its early days. Television news programs featured clips of TMers hopping around in the lotus position, claiming to be flying. Apparently, this claim was too easily disproved and now TMers do not claim to be able to fly or hover. Some advocates, however, claim they can achieve a range of supernatural or paranormal powers through TM, including invisibility. Apparently, since television is a visual medium, this skill has gone largely unnoticed.

One of the demonstrable powers claimed by TM is the "Maharishi effect." This is another so-called scientifically demonstrated fact: "collective meditation causes changes in a fundamental, unified physical field, and...those changes radiate into society and affect all aspects of society for the better" ([Barry Markovsky](#)). One TM® study by a MUM physics professor, Dr. Robert Rabinoff, claimed that the Maharishi effect was responsible for reducing crime and accidents while simultaneously increasing crop production in the vicinity of Maharishi University in Fairfield, Iowa. [James Randi](#) checked with the Fairfield Police Dept, the Iowa Dept of Agriculture, and the Dept of Motor Vehicles and found that the Rabinoff's data was invented (Randi 1982, 99-108).

Apparently, MUM's *accounting* practices were on par with their *scientific* research. Attorney Anthony D. DeNaro, was hired by MUM in 1975 as Director of Grants Administration and legal counsel. In an affidavit signed in 1986 and presented to the United States District Court for the District of Columbia, DeNaro stated

it was obvious to me that [the] organization was so deeply immersed in a systematic, wilful pattern of fraud including tax fraud, lobbying problems and other deceptions, that it was ethically impossible for me to become involved further as legal counsel.

I discussed this with Steve Druker [the University's Executive Vice President], but agreed to remain as Director of Grants provided certain conditions and restrictions were met. In practice, however, because I recognized a very serious and deliberate pattern of fraud, designed, in part, to misrepresent the TM® movement as a science (not as a cult), and fraudulently claim and obtain tax-exempt status with the IRS, I was a lame duck Director of Grants Administration.*

According to DeNaro, "there is no difference at all between other meditation techniques, and TM® except the much-publicized propaganda and advertising claims." He also claims in his affidavit that MUM was characterized by a

disturbing denial or avoidance syndrome....even outright lies and deception are used to cover-up or sanitize the dangerous reality on campus of very serious nervous breakdowns, episodes of dangerous and bizarre behavior, suicidal and homicidal ideation, threats and attempts, psychotic episodes, crime, depression and manic behavior that often accompanied roundings (intensive group meditations with brainwashing techniques).

Defenders of TM claim that DeNaro is just a disgruntled former member who has sour grapes. He is not alone.

Patrick Ryan is a graduate of MUM and practiced TM for ten years. He founded a support group for former members (TM-Ex). Ryan also claims TM is not simply a "harmless way to relax through meditation." He agrees with DeNara that TM uses a good deal of deception

In its advertising, TM emphasizes the practical benefits of meditation - particularly the reduction of stress. TM promoters show videos of members from all walks of life testifying to its benefits. TM sales pitches are full of blood pressure charts, heart-rate graphs, and other clinical evidence of TM's effectiveness. Not mentioned is the fact that scientific tests show similar benefits can be obtained by listening to soothing music, or by performing basic relaxation exercises available in books costing a couple of dollars. After a TM student pays up to \$400 and receives his own personal mantra to chant, he is told never to reveal it to another. Why? Because the same "unique" mantra has been given - on the basis of age - to thousands of people.*

What other relaxation program has a support group for ex-relaxers?

TM®'s political agenda

TM is, like other religious groups these days, heavily involved in politics. [The Natural Law Party](#) is TM's attempt to introduce its metaphysical teachings and practices into every aspect of American life: education, health, economics, prison reform, energy, the environment...they even have a policy on *healthy foods*.

There have also been attempts to introduce TM into public schools. For example, The March 1, 1995, edition of the *Sacramento Bee* (p. B4) reports that John Black, director of a TM program in Palo Alto, California, tried to convince officials in San Jose to let him teach TM in the schools. Meditation in the classroom, he claims, will increase test scores, reduce teenage

pregnancies, rid campuses of violence and drugs and diminish teacher burnout. This powerful message was delivered at a free forum for teachers and meditators titled "Solving the Crisis in Our Schools."

It may be true that people such as John Black really believe that TM can do all these things, but they have no proof that TM in the schools will accomplish any of these noble goals. John Black says that "the crisis in the schools is that people are stressed out." He may be right, but it is doubtful that the claim is even intelligible. Wisely, school officials have remained unconvinced. Even a newspaper ad in which Maharishi Mahesh Yogi himself offered "A Proven Program to Eliminate Crime in San Jose" for a mere \$55.8 million a year couldn't convince City Hall. Similar ads were placed in several major newspapers around the country. There were no takers.

Who said you can't trust City Hall?

See related entry on [Ayurvedic medicine & Deepak Chopra](#).

further reading

[reader comments](#)

- [Maharihi asks wealthy Americans to send him a billion dollars](#)
- [Prayer, TM and African-Americans - Funk 17](#)
- [Information on TM](#) - Freedom of Mind resource center
- [FactNet - TM news](#)
- John Knapp's [Trancenet](#) for the latest research on TM
- [Ex-members support group](#)
- [TM-EX NEWSLETTER TRANSCENDENTAL MEDITATION EX-MEMBERS SUPPORT GROUP](#)
- [A Skeptic's Encounter with TM](#) by Rabbi Raphael H. Levine
- [TM Dissenters FAQ](#)
- [Meditation Information Network](#)
- [The TM Program Home Page](#) Here you can access all the scientific charts detailing in living color the health benefits of TM.

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[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\), chapter 5, "The Giggling Guru: A Matter of Levity".](#)

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[thoughtography](#)

[transubstantiation](#)



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Joel D. Wallach, "The Mineral Doctor"

[Joel D. Wallach](#), MS, DVM, ND, is a veterinarian and [naturopath](#) who claims that all diseases are due to mineral deficiencies, that everyone who dies of natural causes dies because of mineral deficiencies, and that just about anyone can live more than one hundred years if they take daily supplements of colloidal minerals harvested from a pit in Utah. He learned all this from living on a farm, working with Marlin Perkins (of Mutual of Omaha's "Wild Kingdom" fame), doing necropsies on animals and humans, reading stories in *National Geographic* magazine, and reading the 1934 novel by James Hilton, *The Lost Horizon*.

Dr. Wallach makes his claims about minerals despite the fact that in 1993 a research team from the Centers for Disease Control and Prevention in Atlanta, Georgia, reported the results of a 13-year study on 10,758 Americans which failed to find any mortality benefits from vitamin and mineral supplements. The study found that even though supplement users smoke and drink less than non-users, eat more fruits and vegetables than non-users, and are more affluent than non-users, they didn't live any longer than non-users. The study also found no benefit from taking vitamin and mineral supplements for smokers, heavy drinkers or those with chronic diseases.

The basic appeal of Dr. Wallach is the hope he gives to people who fear or are mistrustful of medical doctors and scientific knowledge. He gives hope to those who want to live for a really long time. He gives hope to those who are diagnosed with diseases for which current medical knowledge has no cure. He gives hope to those who want to avoid getting a terminal disease. And he gives hope to those who want to be healthy but who do not want to diet or exercise. All we have to do is drink a magic elixir of colloidal minerals and we'll be healthy. You can't just take your minerals in pill form, he warns us. You must take the colloidal variety in liquid form. Furthermore, this elixir must come from a pit in Utah, the only source approved by Dr. Wallach, and the only one, I suspect, in which he has a financial interest.

the audiotape

Dr. Wallach seems to be most famous for a widely circulated audiotape he calls "Dead Doctors Don't Lie." The label of the tape I have notes that Dr. Wallach was a Nobel Prize nominee. This is true. He was nominated for a Nobel Prize in medicine by the Association of Eclectic Physicians "for his notable and untiring work with deficiencies of the trace mineral selenium and its relationship to the congenital genesis of Cystic Fibrosis." [The Association of Eclectic Physicians](#) is a group of naturopaths founded in 1982 by two naturopathic physicians, Dr. Edward Alstat and Dr. Michael Ancharski. In his

book *Let's Play Doctor* (co-authored with Ma Lan, M.D., M.S.) he states that [cystic fibrosis](#) is preventable, is 100% curable in the early stages, can be managed very well in chronic cases, leading to a normal life expectancy (75 years). If these claims were true, he might have won the Prize. He didn't win, but he gave a lot of (false?) hope to parents of children with cystic fibrosis.

The basic danger of Dr. Wallach is not that people will be harmed by taking colloidal minerals, or even that many people will be wasting their money on a product they do not need. Many of his claims are not backed up with scientific control studies, but are anecdotal or fictional. Because he and other naturopaths exaggerate the role of minerals in good health, he may be totally ignored by the scientific community even if the naturopaths happen to hit upon some real connections between minerals and disease. Furthermore, there is the chance that legitimate scientific researchers may avoid this field for fear of being labeled a kook.

Dr. Wallach claims that there are 5 cultures in the world that have *average life-spans* of between 120 and 140 years: the Tibetans in Western China; the Hunzas in Eastern Pakistan; the Russian Georgians and the Armenians, the Abkhasians, and the Azerbaijanis. He also mentions the people of the Vilcabamba in Ecuador, and those who live around Lake Titicaca in Peru and Bolivia. The secret of their longevity is "glacier milk" or water full of colloidal minerals. It is probably news to these people that they live so long. Dr. Wallach does not mention on what scientific data he bases his claims, but I am sure there are many anthropologists and tour book authors who would like to know about these Shangri-La havens.

He claims to have written over 70 articles in peer reviewed journals, but a search of the University of California periodical index list comes up with zero articles authored or co-authored by him, as did a search in the [Multimedia Medical Reference Library](#). He claims to have written several books, but the only one in the UC library is *Diseases of exotic animals: medical and surgical management* (Philadelphia: Saunders, 1983) which he wrote with William J. Boever.

As mentioned above, his audio tape is titled "Dead Doctors Don't Lie." The label on the tape I have says "Learn why the average life span of an MD is only 58 years." On his tape, Dr. Wallach claims that "the average life span of an American is 75 years, but the average lifespan of an American doctor is only 58 years!" Maybe dead doctors don't lie, but this living one certainly stretches the truth. If he is telling the truth, it is *not* the whole truth and nothing but the truth. According to Kevin Kenward of the American Medical Association: "Based on over 210,000 records of deceased physicians, our data indicate the average life-span of a physician is 70.8 years." One wonders where Dr. Wallach got his data. The only mention in his tape of data on physician deaths is in his description of a rather gruesome hobby of his: he collects obituaries of local physicians as he takes his mineral show from town

to town . Maybe he extrapolated his statistic from this "data"?

On his tape, Dr. Wallach says

...what I did was go back to school and become a physician. I finally got a license to kill (laughter), and they allowed me to use everything I had learned in veterinary school about nutrition on my human patients. And to no surprise to me, it worked. I spent 12 years up in Portland, Oregon, in general practice, and it was very fascinating.

Dr. Wallach is an N.D., a doctor of naturopathy, not an M.D. as his tape obviously suggests. It is unlikely that most of the people in his audience know that naturopaths call themselves physicians and that there is a very big difference between an M.D. and an N.D. He also claims he did hundreds of autopsies on humans while working as a veterinarian in St. Louis. How does a veterinarian get to do human autopsies?

Well, again, to make a long story short, over a period of some twelve years I did 17,500 autopsies on over 454 species of animals and 3,000 human beings who lived in close proximity to the zoos, and the thing I found out was this: every animal and every human being who dies of natural causes dies of a nutritional deficiency.

To accomplish this feat, he would have to do 6 autopsies a day, working 5 days a week for the twelve years and taking only a two-week vacation each year. He was allegedly performing all these autopsies in addition to his other duties, and presumably while he was writing essays and books as well. Maybe all those minerals gave him superhuman powers!

an attack and a panegyric

Dr. Wallach's "Dead Doctors Don't Lie" tape is both an attack on the medical profession and a panegyric for minerals. The attack is vicious and mostly unwarranted, which weakens his credibility about the wonders of minerals. For example, he claims that "300,000 Americans are killed each year in hospitals through neglect and sloppy mistakes." This statistic is taken from Ralph Nader, he says. As far as I know, there has never been a national study of the issue. There was a study done in New York in 1991 (The Harvard Medical Practice Study) which found that nearly 4 percent of patients were harmed in the hospital and 14 percent of these died, presumably of their hospital-inflicted injuries. Lucian L. Leape, a Boston physician, extrapolated from this data that as many as 180,000 Americans may be dying each year of medical injuries suffered at the hands of medical care providers. Statistical extrapolations are notoriously unreliable, but the fact that large numbers of people are being killed by medical personnel in hospitals should not be

ignored. However, it doesn't follow from the fact that medical personnel are killing patients through incompetence that it is safer to seek treatment from a naturopath, especially one who recommends minerals for your cancer, heart disease, cystic fibrosis, schizophrenia, or just about any other ailment imaginable.

Also worth noting is Dr. Wallach's tone and attitude toward the medical profession. He does not come across as an objective, impersonal scientist. He delights in ridiculing "Haavaad" University and cardiologists who die young from heart attacks. (My mother's cardiologist will probably die young. He only went into the field because he was born with a congenital heart defect. But when this man dies, Dr. Wallach will say the cause of death was "mineral deficiency." Apparently, the science of genetics is not taught at colleges of naturopathy.) He reverts to name calling on several occasions, as well. Doctors, he says, routinely commit many practices that would be considered illegal in other fields. At one point he claims that the average M.D. makes over \$200,000 a year in kickbacks. This ludicrous claim didn't even get a peep of skeptical bewilderment from his audience. He sounds like a bitter, rejected oddball who is getting even with the medical profession for ignoring him and his "research."

In addition to citing his many scientific studies and years of research as proof that we need mineral supplements for good health, Dr. Wallach presents U.S. Senate document #264. This paper claims that U.S. soils are 85% depleted of essential minerals. According to Dr. Wallach, that is why we can't get enough minerals from our foods. He has further evidence, too:

...to live to be 100+ we need to consume 90 nutrients per day...60 minerals, 16 vitamins, 12 amino acids and 3 fatty acids...there are some 10 diseases associated with the lack of each of these 90 nutrients or potentially 900 diseases...the American Medical Association did a study in 1939 and came to the conclusion that it is no longer feasible to get all the vitamins we need from foods.

I wonder if the AMA has done any studies on this issue since 1939? If so, why aren't they mentioned? And why, even if mineral supplements are needed can't we buy them off the shelf of our local supermarket? Because they aren't "colloidal." He suggests at one point in his tape that minerals in pill form aren't absorbed at all; they just pass right through the body and out into the sewer lines. But why do our colloidal minerals have to come from a pit in Utah? Here is his explanation:

the only place you can get these in the United States is from a prehistoric Valley in southern Utah that, according to geologists, seventy-five million years ago had sixty to seventy-two minerals in the walls and the floor of that

valley, and those trees and the grasses in that valley and that forest took up all the metallic minerals and made colloidal minerals in their tissues. About that time there was a volcanic eruption which entombed that valley with a thin layer of mud and ash, not thick enough or heavy enough to crush or pressurize this into oil or coal. It was very dry in here, so it never became fossilized or petrified. Okay. Never became rock.

Today, if you put a shaft into this valley, it's still just dried hay. It's seventy-five million year old hay, according to geologists. You can still see the grass and the leaves and the twigs and the pine cones and the bark and so forth. And we grind this plant material up into a flour, very small, particle sized flour, just like a good wheat flour and for three to four weeks we soak it in filtered spring water and when it reaches a specific gravity of 3.0, it's very heavy, it has thirty-eight grams of this colloidal mineral in it per quart or liter and by actual analysis it has sixty colloidal minerals in it. This particular product has been on the market since 1926. It's the only nutritional product on the market that has a legal consent decree from a federal court and an approval from the U.S. Department of Health and Human Services to be harvested and sold as a nutritional supplement. Everybody else who has a vitamin, or mineral, or what not, just follows the labeling requirements of the FDA. This is the only one that, in fact, has a federal consent decree to do it, because it passed all their tests. It's the only one that has been put to this level of test because it works.

How do we know it works? Dr. Wallach guarantees it. Or your money back! Should you trust him? Why wouldn't you trust someone who tells stories about people in China who lived to be over 250 years old or about a 137 year-old cigar-smoking woman! Of course, it is up to you to infer that they lived so long because they took colloidal minerals, though the good Dr. has enough sense not to make such a claim. In case you are still not convinced of this man's trustworthiness, let me inform you that, according to Dr. Wallach, for the past twenty years there have been cures for arthritis, diabetes and ulcers. These cures were discovered by veterinarians, who also discovered the cause of Alzheimer's disease years ago.

Not everyone is so enthusiastic about colloidal minerals. For example, Ellen Coleman, RD, MA, MPH, says: "Colloidal mineral products have not been proven safe or effective. They are not better absorbed than regular mineral supplements."* Research scientist James Pontolillo is concerned that colloidal mineral products may contain toxic organic compounds.* The National Nutritional Food Association (NNFA) says that some colloidal mineral

products "contain aluminum or toxic minerals; others are high in sodium. Some do not contain detectable amounts of minerals listed on their labels. Finally, there is no evidence that colloidal minerals are more bioavailable than those found in other forms."*

In conclusion, Dr. Wallach has spawned a small industry of mineral sellers, including some [MLM](#) projects and a few who [advertise on the WWW](#). Keeping in the truthful mode of Dr. Wallach, some of these WWW sites quote Linus Pauling as saying "You can trace every sickness, every disease, and every ailment to a mineral deficiency." This claim is supposed to come from the man who spent much of the latter part of his long life as an advocate for vitamin C. Maybe Dr. Pauling didn't know the difference between a vitamin and a mineral. I think it is more likely that Dr. Wallach and his followers don't know the difference between fact and fiction.

See **related entries** on [alternative health practices](#), [DHEA](#), and [naturopathy](#).

further reading

[reader comments](#)

- [Exposé on Joel Wallach's controversial new tape, "Dead Doctors Don't Lie"](#)
- [Health Care Reality Check FAQ Sheet: *Colloidal Minerals* by Ellen Coleman, RD, MA, MPH](#)
- [Colloidal Mineral Supplements: Unnecessary and Potentially Hazardous](#) by James Pontolillo
- [Quackwatch on "Dietary Supplements," Herbs, and Hormones](#)

[Barrett Stephen and Victor Herbert, *The Vitamin Pushers : How the 'Health Food' Industry Is Selling America a Bill of Goods* \(Prometheus, 1994\).](#)

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control group study, double-blind and random tests

A control group study uses a control group to compare to an experimental group in a test of a causal hypothesis. The control and experimental groups must be identical in all relevant ways except for the introduction of a suspected causal agent into the experimental group. If the suspected causal agent is actually a causal factor of some event, then logic dictates that that event should manifest itself more significantly in the experimental than in the control group. For example, if 'C' causes 'E', when we introduce 'C' into the experimental group but not into the control group, we should find 'E' occurring in the experimental group at a significantly greater rate than in the control group. Significance is measured by relation to chance: if an event is not likely due to chance, then its occurrence is significant.

A double-blind test is a control group test where neither the evaluator nor the subject knows which items are controls. A random test is one which randomly assigns items to the control or experimental groups.

The purpose of controls, double-blind and random testing is to reduce error, self-deception and bias. An example should clarify the necessity of these safeguards.

The DKL LifeGuard Model 2, from DielectroKinetic Laboratories, can detect a living human being by receiving a signal from the heartbeat at distances of up to 20 meters through any material, according to its manufacturers. [Sandia Labs](#) tested the device using a double-blind, random method of testing. Sandia is a national security laboratory operated for the U.S. Department of Energy by the Sandia Corporation, a Lockheed Martin Co. The causal hypothesis they tested could be worded as follows: the human heartbeat causes a directional signal to activate in the Lifeguard, thereby allowing the user of the LifeGuard to find a hidden human being (the target) up to 20 meters away, regardless of what objects might be between the LifeGuard and the target.

The testing procedure was quite simple: five large plastic packing crates were set up in a line at 30-foot intervals and the test operator, using the DKL LifeGuard Model 2, tried to detect in which of the five crates a human being was hiding. Whether a crate would be empty or contain a person for each trial was determined by random assignment. This is to avoid using a pattern which might be detected by the subject. Their tests showed that [the device performed no better than expected from random chance](#). The test operator was a DKL representative. The only time the test operator did well in detecting his targets was when he had prior knowledge of the target's location. The

LifeGuard was successful ten out of ten times when the operator knew where the target was. It may seem ludicrous to test the device by telling the operator where the objects are, but it establishes a baseline and affirms that device is working. Only when the operator agrees that his device is working should the test proceed to the second stage, the double-blind test. For, the operator will not be as likely to come up with an [ad hoc hypothesis](#) to explain away his failure in a double-blind test if he has agreed beforehand that the device is working properly.

If the device could perform as claimed, the operator should have received no signals from the empty crates and signals from each of the crates with a person within. In the main test of the LifeGuard, when neither the test operator nor the investigator keeping track of the operator's results knew which of five possible locations contained the target, the operator performed poorly (six out of 25) and took about four times longer than when the operator knew the target's location. If human heartbeats cause the device to activate, one would expect a significantly better performance than 6 of 25, which is what would be expected by chance.

The different performances--10 correct out of 10 tries versus 6 correct out of 25 tries--vividly illustrates the need for keeping the subject blind to the controls: it is needed to eliminate self-deception and [subjective validation](#).

The evaluator is kept blind to the controls to prevent him or her from subtly tipping off the subject, either knowingly or unknowingly. If the evaluator knew which crates were empty and which had persons, he or she might give a visual signal to the subject by looking only at the crates with persons. To eliminate the possibility of cheating or evaluator bias, the evaluator is kept in the dark regarding the controls.

The lack of testing under controlled conditions explains why many psychics, graphologists, astrologers, dowzers, paranormal therapists, etc., believe in their abilities. To test a dowser it is not enough to have the dowser and his friends tell you that it works by pointing out all the wells that have been dug on the dowser's advice. One should perform a random, double-blind test, such as the one done by Ray Hyman with an experienced dowser on the PBS program *Frontiers of Science* (Nov. 19, 1997). The dowser claimed he could find buried metal objects, as well as water. He agreed to a test that involved randomly selecting numbers which corresponded to buckets placed upside down in a field. The numbers determined which buckets a metal object would be placed under. The one doing the placing of the objects was not the same person who went around with the dowser as he tried to find the objects. The exact odds of finding a metal object by chance could be calculated. For example, if there are 100 buckets and 10 of them have a metal object, then getting 10% correct would be predicted by chance. That is, over a large number of attempts, getting about 10% correct would be expected of anyone, with or without a dowsing rod. On the other hand, if someone consistently got 80% or 90% correct, and we were sure he or she was not cheating, that would

confirm the dowser's powers.

The dowser walked up and down the lines of buckets with his rod but said he couldn't get any strong readings. When he selected a bucket he qualified his selection with something to the effect that he didn't think he'd be right. He was right about never being right! He didn't find a single metal object despite several attempts. His performance is typical of dowsers tested under controlled conditions. His response was also typical: he was genuinely surprised. Like most of us, the dowser is not aware of the many factors that can hinder us from doing a proper evaluation of events: self-deception, [wishful thinking](#), suggestion, unconscious bias, [selective thinking](#), [subjective validation](#), [communal reinforcement](#), etc.

Many control group studies use a [placebo](#) in control groups to keep the subjects in the dark as to whether they are being given the causal agent that is being tested. For example, both the control and experimental groups will be given identical looking pills in a study testing the effectiveness of a new drug. Only one pill will contain the agent being tested; the other pill will be a placebo. In a double-blind study, the evaluator of the results would not know which subjects got the placebo until his or her evaluation of observed results was completed. This is to avoid evaluator bias from influencing observations and measurements.

See related entries on [ad hoc hypotheses](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), [James Van Praagh](#) and [wishful thinking](#).

further reading

- [Therapeutic Touch Study Data](#)
- [Mass Media Funk](#)

[Giere, Ronald, *Understanding Scientific Reasoning*, 4th ed, \(New York, Holt Rinehart, Winston: 1998\).](#)

[Kourany, Janet A., *Scientific Knowledge: Basic Issues in the Philosophy of Science*, 2nd edition \(Belmont: Wadsworth Publishing Co., 1998\).](#)

[Sagan, Carl. *The Demon-Haunted World: Science as a Candle in the Dark* \(New York:Random House, 1995\).](#)



SkepDic.com



[Treatment of the Common Cold with Unrefined Echinacea - A Randomized, Double-Blind, Placebo-Controlled Trial](#)

[Wasting Big Bucks On Alternative Medicine](#) Leon Jaroff, *Time*

[Alternative medicines may pose risk U.N. warns herbal, spiritual remedies could be misused](#)

[Consumer Group Labels White House Panel's Proposals "Irrational" and "Contrived"](#) NCAHF News Release, March 28, 2002

alternative health practices

Health or medical practices are called "alternative" if they are based on untested, untraditional or unscientific principles, methods, treatments or knowledge. "Alternative" medicine is often based upon metaphysical beliefs and is frequently anti-scientific. Because truly "alternative" medical practices would be ones that are known to be equally or nearly equally effective, most "alternative" medical practices are not truly "alternative." If the "alternative" health practice is offered along with conventional medicine, it is referred to as "complementary" medicine.

It is estimated that "alternative" medicine is a \$15 billion a year business. Traditionally, most insurance companies have not covered "alternative" medicine, but American Western Life Insurance Company is typical of a growing trend. It offers a network of about 300 providers in California, Arizona, Colorado, New Mexico and Utah specializing in acupuncture, aromatherapy, biofeedback, chiropractic, herbal medicine, massage, naturopathy, reflexology and yoga, among other therapies. Also, Mutual of Omaha Insurance Co. has reimbursed clients for the costs of a non-surgical "alternative" therapy for heart disease. Dr. Dean Ornish, an internist and director of the Preventive Medicine Research Institute in Sausalito, developed the therapy, which includes a vegetarian diet, meditation and exercise. Mutual of Omaha was quick to note that they were not opening the door to covering all forms of "alternative" therapies. They considered Dr. Ornish's treatment to have been proven to be effective.

The National Institutes of Health's Office of Alternative Medicine has supported a number of research studies of unorthodox cures, including the use of shark cartilage to treat cancer and the effectiveness of bee pollen in treating allergies. The most popular "alternative" therapies are relaxation techniques, chiropractic, herbal medicine and massage. Very few scientific studies are done by "alternative" practitioners. Indeed, many disdain science in favor of metaphysics, faith, and magical thinking.

On the other hand, many questionable products touted as cure-alls or as cures for serious illnesses such as cancer or heart disease are promoted with scientific gobbledygook and misrepresentation or falsification of scientific studies. [Jodie Bernstein](#), Director of the FTC's Bureau of Consumer Protection, offers the following list of signs of quackery:

**** The product is advertised as a quick and effective cure-all for a wide range of ailments.**

**** The promoters use words like scientific breakthrough,**

miraculous cure, exclusive product, secret ingredient or ancient remedy.

**** The text is written in "medicalese" - impressive-sounding terminology to disguise a lack of good science.**

**** The promoter claims the government, the medical profession or research scientists have conspired to suppress the product.**

**** The advertisement includes undocumented case histories claiming amazing results.**

**** The product is advertised as available from only one source.**

The general rule is "if it sounds too good to be true, it probably is."

DAILY MAIL (London)

Hidden risks in alternative therapies (December 21, 1998).

"Potentially life-threatening problems have been caused by treatments such as homeopathy, acupuncture and chiropractic, a survey has found. Hepatitis B infections, nerve damage, allergic reactions and delayed diagnoses of cancer were reported by GPs to researchers at the University of Exeter's Department of Complementary Medicine. It wants tighter controls on alternative therapies, which have not been properly tested and are mostly unregulated.

One in ten of the 686 GPs reported serious side-effects suspected to have been triggered by complementary therapies. A further third reported non-serious side effects such as inappropriate treatment. About half the serious side-effects, including nerve damage, spinal cord compression and worsening of existing conditions, resulted from spinal manipulation, usually by chiropractic or osteopathic techniques, according to the survey published in the *International Journal of Risk and Safety in Medicine*. Acupuncture was blamed for two hepatitis B infections and a lodged broken needle, aromatherapy triggered allergic reactions and hypnotherapy caused one patient to suffer severe hallucinations.

Homeopathy was held responsible for at least one 'avoidable death' from pneumonia, there were delays in cancer diagnosis and asthmatics needed hospital treatment after being told to stop medication."

Why is "alternative" health care so popular?

The New England Journal of Medicine reported on a study in January 1993 which showed that about one-third of American adults sought some sort of unorthodox therapy during the preceding year. Why is "alternative" health care [AHC] so popular? There are several reasons.

1. *Drugs and surgery are not part of AHC. Fear of surgery and of the side effects of drugs alienate many people from conventional medicine. AHC is attractive because it does not offer these frightening types of treatments. Furthermore, conventional medicine often harms patients. AHC treatments are usually inherently less risky and less likely to cause direct harm.*

Selective thinking and **confirmation bias** can easily lead one to focus on cases where surgeons amputate the wrong limb, remove the wrong part of the brain, or kill a patient by administering too much anaesthetic or radiation. Many people ignore the millions of patients who are alive and well today because of surgery or drugs. They focus instead on the cases of patients who die after "routine" surgery, who are permanently disabled because of an adverse reaction to a drug, or who are killed by a deranged nurse acting as a self-appointed "mercy" killer.

This fear and skepticism regarding drug treatment, hospitalization, and surgery is not without foundation. Some harm is caused by malpractice, some is the tragic but inevitable outcome of unpredictable reactions to drugs or surgery. Because there are often legal issues involved, physicians and hospitals are often not forthcoming with details of patient deaths for which they might be responsible. Confidence in medicine erodes with each report of "therapeutic misadventures."

Are these "therapeutic misadventures" rare? As far as I know, there has never been a national study of the issue. There was a study done in New York in 1991 (The Harvard Medical Practice Study) which found that nearly 4 percent of patients were harmed in the hospital and 14 percent of these died, presumably of their hospital-inflicted injuries. Lucian L. Leape, a Boston physician, extrapolated from this data that as many as 180,000 Americans may be dying each year of medical injuries suffered at the hands of medical care providers. He notes, for dramatic effect, that this is the equivalent of three jumbo-jet crashes every two days. ("Truth about human error in hospitals," by Abigail Trafford, editor of the *Washington Post's* health section, printed in the *Sacramento Bee*, March 21, 1995, p. B7.)

On the other hand, the risks of being positively harmed by an "alternative" practitioner such as homeopath, for example, are negligible when compared to the risks of being harmed by a

conventional physician dispensing powerful drugs and performing risky surgeries. This is because a homeopath is not intervening in any significant way. The doses they give are not likely to have any effect on anyone. A homeopath is not likely to ever kill a patient by mistake. "Alternative" medical treatments are essentially non-interventionist and their risks are generally negative, not positive. The harm to the patients comes not from positive intervention but from **not** getting treatment (drugs or surgery) which would improve their health and increase their life span.

While it is true that conventional medicine is not without its risks--even fatal risks--it is unreasonable to reject it altogether on these grounds. Reasonable people can't ignore the diabetics now alive and well, thanks to their drugs, or the millions of people who owe their lives to vaccinations against lethal or crippling diseases. We can't ignore the millions whose pain is gone thanks to surgery, or who owe their continuing existence to successful medical treatment involving both drugs and surgery.

A reasonable response to the very real risks of treatment by conventional health care providers is to take greater responsibility for one's treatment. A reasonable patient cannot have blind faith in his or her physician, no matter how godlike the doctor may seem or try to present himself. (A very dear friend of mine who lived to be 80 thanks to pills and surgery, found great humor in telling her physicians she knew M.D. stands for "medical divinity.") We have to become more knowledgeable of the drugs prescribed to us. We have to participate more in our own treatment, which means we have to ask lots of questions and assume nothing. We can't assume that the drug the nurse wants us to swallow is the one our physician has prescribed. (Just ask, "What's this pill?" You should know whether you're supposed to take it or not.) We need to seek second and third opinions, which doesn't mean look for another doctor who will tell you what you want to hear. It means do research. Read about your illness and the prescribed treatment for it. We can never eliminate risk altogether when we must depend on human beings, fallible and imperfect as we are. But we can reduce our risk by being more responsible for our health care and being less passive. Some faith in the competence of our health care providers is necessary, but it need not be *blind faith*. You may have to have surgery to have a limb removed or an artery widened, but you may need to make sure that the surgeon ready to operate doesn't think he's supposed to remove your gall bladder. The young boy who was to have a leg amputated and had written in large ink letters on his good leg "NOT THIS ONE" may have gotten a laugh from the hospital personnel. We can admire the boy's humor, but it is his lack of blind faith that is most admirable to a skeptic.

2. *Conventional medicine often fails to discover the cause of an illness or*

to relieve pain. This is true of AHC as well. But conventional practitioners are not as likely to express hopefulness when their medicine fails. "Alternative" practitioners often encourage their patients to be hopeful even when the situation is hopeless.

3. *When conventional medicine does discover the cause of an illness, it often fails to offer treatment that is guaranteed to be successful. Again, AHC offers hope when conventional medicine can't offer a safe and sure cure.* A local television news anchor rejected chemotherapy for her breast cancer in favor of [Gerson Therapy](#). Pat Davis followed a rigorous 13-hour-a-day regimen of diet (green vegetables and green juices), exercise, and coffee enemas (four a day) developed by Dr. Max Gerson. Davis' mother had had breast cancer twice, undergoing chemotherapy and a mastectomy. Davis knew the dangers of chemotherapy and the effects of breast surgery. She refused to accept that there were no alternatives. Gerson therapy gave her hope. When it was clear that the Gerson treatment was ineffective, Davis agreed to undergo chemotherapy. She died four months later on March 20, 1999, at the age of 39, after two and one half years of fighting her cancer. Could chemotherapy have saved her had she sought the treatment earlier? Maybe. The odds may have been against her, but the slim hope offered by scientific medicine was at least a real hope. The hope offered by Gerson is a false hope through and through.
4. *AHC often uses "natural" remedies. Many people believe that what is [natural](#) is necessarily better and safer than what is artificial (such as pharmaceuticals).* Just because something is natural does not mean that it is good, safe or healthy. There are many natural substances that are dangerous and harmful. There are also many natural products that are ineffective and of little or no value to one's health and well-being.
5. *AHC is often less expensive than conventional medicine. This fact has made "alternative" treatments attractive to Health Maintenance Organizations (HMOs) and to insurance companies, both of whom are coming to realize that it is cheaper and thus more profitable to offer "alternative" treatments.* If "alternative" therapies were truly alternatives, it would make no sense to pay more for the same quality treatment. However, most so-called "alternative" therapies are not truly alternatives; they are not equally effective treatments. Thus, the fact that they are cheaper is of little significance.
6. *AHC is often sanctioned by state governments, which license and regulate "alternative" practices and even protect "alternative" practitioners from attacks by the medical establishment.* Chiropractors, for example, won a major restraint-of-trade lawsuit against the American Medical Association in 1987. A federal judge permanently barred the AMA from "hindering the practice of chiropractic." Being government licensed, regulated and protected is seen as legitimizing AHC. Actually, much of the licensing and regulation is aimed at

protecting the public from frauds and quacks.

7. *Many doctors of conventional medicine treat diseases first and people secondly.* "Alternative" practitioners are often "holistic," claiming to treat the mind, body and soul of the patient. Many people are attracted to the spiritual and metaphysical connections made by AHC practitioners. Many AHC patients claim that their "healers" treat them as persons and seem to care about them, whereas conventional doctors often seem to lack good "bedside manner."

Conventional physicians often work out of large hospitals or HMOs and see hundreds or thousands of patients for their specialized needs. "Alternative" therapists, on the other hand, often work out of their homes or small offices or clinics, and see many fewer patients. More importantly, those who seek help from a conventional physician usually do not care what his or her personal religious, metaphysical or spiritual beliefs are. Those who seek "alternative" medicine often are attracted to the personality and worldview of their practitioner. For example, a person with diabetes who goes to an endocrinologist probably will not be interested in his or her physician's belief in *chi* or any other spiritual or metaphysical notions. Whether the doctor believes in God or the soul is irrelevant. What matters is the doctor's knowledge and experience with the disease. If the doctor is kind and personable, that is all the better. A cold and indifferent "alternative" practitioner would not have much business. A cold and indifferent conventional physician may have patients standing in line for treatment if he or she is an excellent physician.

8. *Many people apparently do not understand that conventional medicine has the same shortcomings as all other forms of human knowledge: it is fallible. It also is correctable.* Systems of thought that are fundamentally metaphysical in nature are not testable and can therefore never be proven incorrect. Hence, once they get established they tend to become dogmatically adhered to and never change. The only way to change dogma is to become a heretic and set up your own counter-dogma. When scientific medicine errs, it errs in ways that can be corrected. Treatments and practices that are ineffective or harmful are eventually rejected.

"Alternative" practices and treatments are often based upon faith and belief in metaphysical entities such as [chi](#) and lend themselves to [ad hoc hypotheses](#) to explain away failure or ineffectiveness. In scientific medicine there will be disagreement and controversy, error and argument, testing and more testing, etc. Decisions will be made by fallible human beings engaging in the fallible practice of scientific medicine. Some of those decisions will be bad decisions, but in time they will be discovered for what they are and treatments which were once standard will be rejected and replaced with other treatments.

Medicine will grow, it will progress, it will change dramatically. Homeopathy, iridology, reflexology, aromatherapy, therapeutic touch, etc. will not change in any fundamental ways over the years. Their practitioners do not challenge each other, as scientific medicine requires. Instead, "alternative" practitioners generally do little more than reinforce each other.

9. *"Alternative" therapies appeal to magical thinking.* Ideas with little scientific backing, such as those of [sympathetic magic](#), are popular among "alternative" practitioners and their clients. Conventional medicine is rejected by some simply because it is *not* magical. While conventional medicine may sometimes seem to work miracles, the miracles of modern medicine are based on science not faith.
10. *The main reason people seek "alternative" health care, however, is because they think it "works." That is, they feel better, healthier, more vital, etc., after the treatment.* Those who say "alternative" medicine "works" usually mean little more than that they are satisfied customers. For many AHC practitioners, having satisfied customers is all the proof they need that they are true healers. In many cases, however, a person's condition would have improved had he or she done nothing at all. But since the improvement came *after* the treatment, it is believed that the improvement must have been caused by the treatment (the [post hoc fallacy](#) and [the regressive fallacy](#)). In many cases, the successful treatment is due to nothing more than [the placebo effect](#). In some cases, treatment by conventional medicine causes more harm than good and the improvement one feels is due to *stopping* the conventional treatment rather than to starting the "alternative" one. (One reason spiritual healers in pre-modern medicine times may have had better success rates on the battlefield than conventional healers is due to the fact that conventional healers often harmed their patients: e.g., infecting them while treating them. Spiritual healers, who did nothing to the wound, didn't infect the patient, who often healed thanks to the body's own internal healing mechanisms.)

In many cases, the cure was actually effected by the conventional medicine taken along with the "alternative" therapy, but the credit is given to the "alternative." Also, many so-called cures are not really cures at all in any objective sense. The patient may have been misdiagnosed in the first place, so no cure actually took place.ⁿ Also, a patient subjectively reports that he or she "feels better" and that is taken as proof that the therapy is working. Psychological effects of therapies are not identical to objective improvements, however. A person may feel much worse but actually be getting much better. Conversely, a person may feel much better but actually be getting much worse.

11. *Finally, many advocates of "alternative" therapies refuse to admit*

failure. When comedian Pat Paulsen died while receiving "alternative" cancer therapy in Tijuana, Mexico, his daughter did not accept that the therapy was useless. Rather, she believed that the only reason her father died was because he had not sought the "alternative" therapy sooner. Such faith is common among those who are desperate and vulnerable, common traits among those who seek "alternative" therapies.

See entries for the following "alternative" health practices:

- [acupuncture](#)
- [alphanotics](#)
- [applied kinesiology](#)
- [aromatherapy](#)
- [aura therapy](#)
- [Ayurvedic medicine](#)
- [chelation therapy](#)
- [chiropractic](#)
- [craniosacral therapy](#)
- [crystals](#)
- [DHEA](#)
- [ear candling](#)
- [energy healing](#)
- [facilitated communication](#)
- [holistic medicine](#)
- [homeopathy](#)
- [hypnosis](#)
- [iridology](#)
- [joy touch](#)
- [macrobiotics](#)
- [massage therapy](#)
- [naturopathy](#)
- [New Age Therapies](#)
- [psychic surgery](#)
- [reflexology](#)
- [reiki](#)
- [rolfing](#)
- [shark cartilage as a cancer cure](#)
- [therapeutic touch](#)
- [urine therapy](#)
- [Joel D. Wallach, "The Mineral Doctor"](#)

See related entries on [ad hoc hypothesis](#), [Edgar Cayce](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#),

[the placebo effect](#), [the post hoc fallacy](#), [the regressive fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), and [testimonials](#) and [wishful thinking](#).

ⁿA study by researchers at the Johns Hopkins Hospital in Baltimore of 6,000 patients diagnosed with cancer found that one out of every 71 cases was misdiagnosed (a 1.4% error rate). See "Misdiagnosing Cancer" by John McKenzie, May 9, 2001, [ABCNews.com](#).

further reading

Medical Suburban Myths (from the [Suburban Myths Page](#))

[Myth 2](#). Prescription drugs are one of the leading causes of death.

[Myth 3](#). Most medical treatments have never been clinically tested.

[Myth 19](#). Medical doctors typically know nothing about nutrition.

[Myth 21](#). Faith healing works.*

[Myth 22](#). Dr. Randolph Byrd scientifically proved that prayer can heal.

[Myth 23](#). Even if Dr. Byrd failed, others have succeeded in proving scientifically that prayer heals.

[Myth 25](#). Transplant organs carry personality traits which are transferred from donors to receivers.

[Myth 31](#). Crimes, mental illness, suicides, and emergency room visits increase when there is a full moon.

[Myth 43](#). Suicide increases over the holidays.

[Myth 46](#). Switching to a low-tar cigarette will reduce one's chances of being exposed to the carcinogens in cigarette smoke.

[Myth 47](#). Vaccination of children with the (MMR) vaccine to prevent measles,* mumps and rubella causes autism.*

[reader comments](#)

- [Quack Watch](#) - Dr. Stephen Barrett
- [The National Council Against Health Fraud - Resource Documents](#)
- [Chirobase](#) and [ChiroWatch](#) (on chiropractic)
- ["Why Bogus Therapies Often Seem to Work"](#) by Barry L. Beyerstein, Ph.D.
- [A LITTLE SKEPTICISM WOULD BE HEALTHY](#) by Al Seckel and Pat Linse
- [Alternative Medicine and the Laws of Physics](#) by Robert L. Park
- [FTC: Fraudulent Health Claims](#)
- [Internet Health Fraud](#) - The FTC's "Operation Cure.all"
- [Mystical Medical Alternativism](#) by Jack Raso
- [The Expanded Dictionary of Metaphysical Healthcare: Alternative Medicine, Paranormal Healing, and Related Methods](#) by Jack Raso, M.S., R.D.
- [Health Care Reality Check](#)
- [Healthfinder](#) - the federal consumer health information gateway links to more than 5,000 reliable sites on health and medical info
- [Herbal supplements not child's play](#)
- [Alternative Medicine: the 18 billion dollar experiment - Hope or Hype?](#) The L.A. Times
- [EVALUATING ALTERNATIVE / COMPLEMENTARY THERAPY INFORMATION](#) - British Columbia Cancer Agency
- [The Quackery Index](#) by Dave W.

- [antineoplaston cancer treatment of Stanislaw Burzynski \(more and more\)](#)
- [colonic irrigation \(also called colon hydrotherapy\)](#)
- [colloidal mineral supplements](#)
- [colloidal silver](#)
- [faith healing](#)
- [herbal roulette](#)
- [multiple chemical sensitivity](#)
- [Natural Vision Improvement system of Dr W H Bates](#)
- [St. John's Wort](#)

[The Scientific Review of Alternative Medicine](#)

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America*, \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

[Gardner, Martin. *Fads and Fallacies in the Name of Science*\(New York: Dover Publications, Inc., 1957\), ch. 16.](#)

[Gardner, Martin. "Water With Memory? The Dilution Affair," in *The Hundredth Monkey*, ed. Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\), pp. 364-371.](#)

[Randi, James. *The Faith Healers* \(Amherst, N.Y.: Prometheus Books\).](#)

[Raso, Jack. "*Alternative*" Healthcare: A Comprehensive Guide \(Amherst, NY: Prometheus Books, 1994\).](#)

Raso, Jack. "Mystical Medical Alternativism," *Skeptical Inquirer*, Sept/Oct 1995.

[Sampson, Wallace and Lewis Vaughn, editors. *Science Meets Alternative Medicine: What the Evidence Says About Unconventional Treatments* \(Prometheus Books, 2000\).](#)

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reader comments:

acupuncture

29 Dec 2000

Time for some hearsay...

I was reading over all the comments about acupuncture, and was amazed. I think the whole chi yin/yang thing more religious than scientific, and thus will never be proven. Deal with it people, I have with my personal religious beliefs.

But I have co-worker who got some impromptu AP (I'm tired of worrying if I'm spelling it right) from a physical instructor when he sprained his knee. The swelling and pain stopped, but he was then told to get home and rest for the rest of the day. Why? he asked. Because all AP did was "turn off" a nerve, thus easing the pain, but also over-riding the body's natural defense against injury. If he had continued, he would have damaged his knee more.

Now, there is no evidence for this. It would explain a great many things. I am inclined to believe it as it is the only argument I can reasonably believe to be true (I know from experience that when I bang my arm just right, it goes dead for a while, maybe same principle).

All that chi explanation is based on faith and personal belief, and like religion, is personal and doesn't transfer well to others not raised with the belief already. Doesn't mean it isn't true, but you will never prove it, so stop trying. Stick to what you might be able to prove and cut your losses. Testimonials are not proof.

Have a nice day!

Gordon Thomas

reply: I agree. Testimonials are not proof.

28 Dec 2000

I, too, do not believe in acupuncture, and will stop going to the acupuncturist when it stops working.

I had a plantar wart removed by surgery. A year later, another one appeared. Not wanting to go through the surgery again, I procrastinated, and it got bigger and bigger. Then my back went out, and I went to the acupuncturist. Two days

later, my back was on the mend. Two weeks later, the plantar wart was gone.

My acupuncturist explains that the procedure seems to have some effect of improving the efficiency of the immune system. That makes some sense.

He also noted the difference between western medical approaches and the eastern approach. Asians historically have accepted that acupuncture works, and have developed explanations that fit - hence the chi - Ying - yang metaphors. Western medicine derives treatments from empirical studies; therefore, these treatments must have been "proven".

This physician has studied both approaches. He holds a Medical Doctor certificate and certificates for proficiency in acupuncture.

David Whitehead

reply: Because the second wart appeared a year after the surgery, you wouldn't think of making a causal connection between the two, but since your back "was on the mend" two days after acupuncture, you see a causal connection. There could be one, but I doubt if it has anything to do with "improving the efficiency of the immune system," since back pain is not usually caused by an immune system deficiency.

The wart was gone two weeks after the acupuncture and you see a causal connection, but you don't mention whether you did anything else for the wart in those two weeks. I bring this up because while looking for some information on plantar warts I found the [following](#):

My daughter had a plantar wart when she was 6. We treated it in much the same way you did with the same results. We also had liquid nitrogen treatments to burn it off with some success. Nothing was fool proof.

I then read [Andrew Weil's](#) suggestion for visualization. For my daughter this involved visualizing little Smurfs (a cartoon character if you haven't heard of them) marching through her blood stream and digging away at the wart. We went through a little visualization routine just before bed each night for about a week. We also used Dr. Scholl's plantar wart remover at the same time, so you can be the judge of what worked.

The acupuncture may have cured your wart, but I would think that one session would be about as effective as a few cuts and bruises from a fall for kick-starting your immune system enough to combat a wart. Anyway, I'm glad you didn't have to have another surgery.

David Whitehead replies:

This physician tells me that recovery from these back injuries is accomplished by the body's healing processes. Repairing soft tissues and killing a wart seem to be similar in this regard. I'm interested to know if the same biological systems are involved. If so, the claim that acupuncture invigorates these systems may have some merit. I did nothing else for the wart during those two weeks. It could have started to go away before the acupuncture, but I didn't notice that. Do those kinds of warts just die on their own? My perception of the thing was that it was flourishing - it had been there for several months and had reproduced many times - and it was starting to make me limp. Then, after the acupuncture, it just vanished.

reply: The wart is caused by a virus; it is highly unlikely that the back problem was viral.

I've had a wart that just went away on its own, but not a plantar wart.

Another interesting claim the physician/acupuncturist made: some people have a higher affinity for, or susceptibility to, acupuncture. Apparently, I am one of those people.

reply: I'll bet he tells that to all his successes!

The Smurf treatment? That's great! Although I'm glad I don't need to go to that extreme.

What about this idea of the eastern "scientific" approach: It works, we don't know why, but we devise a metaphor of meridians, chi blockages, and ying/yang balance, to fit the perceived results. If it works, and the metaphor allows us to repeat the treatment successfully, then cannot the metaphysical pronouncements of some acupuncturists be ignored? I mean: people will say anything for attention.

reply: Sounds good to me. The actual origins of chi, meridians, etc., and their connection to acupuncture is not known, however.

23 Dec 2000

Some of your information regarding acupuncture is false. As you are a seeker of knowledge I am sure you would like to consult the American Medical Association, and the United Nations World Health Organization which have recognized acupuncture as being a scientifically proven effective treatment--although the mechanism is not clear, some think it may stimulate the lymphatic system or other aspects of the immune system--in at least 200 specific medical conditions. In addition, your skeptic belief--as it is no more founded on scientific evidence than its opposite--that the scientifically observable effects of

acupuncture are merely due to 'psychological expectations' and 'placebo' effect is highly dubious. Someone with even an elementary knowledge of acupuncture would be familiar with the fact that acupuncture has not only had scientifically verifiable effects in humans but since its beginnings, has been used effectively in veterinary (on animals) applications--historically it was widely used on war horses in China, then later on other livestock, and finally in companion animals. I do not see how an animal such as a horse or a cow or a dog could harbor beneficial 'psychological expectations' regarding being stuck with needles, or harbor such a 'placebo effect'.

The fact is that acupuncture is scientifically proven effective treatment for over 200 specific medical conditions.

The existence of chi is disputable.

But, acupuncture deserves your respect at least in those many cases where it is scientifically proven and recognized by the AMA and the UNWHO as effective, at least until you can scientifically refute this evidence.

I understand that there are many frauds out there--yes there are frauds out there claiming to be acupuncturists, especially in this country since acupuncture is new and there are no established traditions, inadequate expertise, inadequate 'peer review', etc..

Perhaps there is no chi, perhaps acupuncture is just the accumulation of many centuries of trial-and-error, but in many cases it does work, and as a man concerned with upholding the naked truth I think you owe it to the public to change your web page to reflect this fact.

Just because you can't explain it, or just because their explanation is wrong, doesn't change the fact that it is an effective treatment for some conditions--a fact, a treatment which shouldn't be denied simply on intellectual loyalties or beliefs contrary to scientific proof.

As someone who is studying Western Science (cell biology, genetics), it is frustrating when things are beyond our explanation or when people neglect to think critically, but that doesn't mean that just because science can't explain it that it doesn't work: gunpowder was a fact long before the laws of combustion were understood.

George Jones

reply: You need to learn the difference between a *claim* and a *fact*. I know there are dozens of studies which *claim* that acupuncture is an effective remedy for depression, allergies, asthma, arthritis, bladder and kidney problems, constipation, diarrhea, colds, flu, bronchitis, dizziness, smoking, fatigue, gynecologic disorders, headaches, migraines, paralysis, high blood

pressure, PMS, sciatica, sexual dysfunction, stress, stroke, tendonitis and vision problems. I mention this claim in the article.

I find it more than interesting that you do not mention by name a single study to support your *claim* that acupuncture has been shown to be a "scientifically proven effective treatment...in at least 200 specific medical conditions." Nor do you reveal where you got the notion that the American Medical Association says that this claim is a fact.

Your focus on whether science can explain how acupuncture works is misplaced. First, it must be established what is meant by "works." Then, it must be established *that* it works. After that, explanations as to *how* it works become appropriate. All this is addressed in the article. In case you missed it, I mention that some researchers think that acupuncture stimulates nerve endings, releasing endorphins. I also link to an [article](#) which asserts "A team of researchers at the University of California-Irvine and a university in China has found that acupuncture activates a group of nerve cells called the endorphin system to lower blood pressure and treat some types of heart disease." This is a long way from "proven effective for 200 specific medical conditions."

10 Oct 2000

Several years ago I had the flu. I've never been so sick in my life and I found it hard to believe that I could live to my late 20's without ever having had the flu before. Every muscle in my body ached. Ache is too mild. Well, I recovered slowly but the flu seemed to have settled in my arms. Weird, I know, but that's what I kept thinking. I could use the hand of one arm but the arm itself hurt when moved, and the other arm was okay but the hand hurt when moved. This subsided after a couple of weeks but one arm still hurt so much that it was all I thought of day and night.

My symptoms did not match carpal tunnel syndrome so I convinced myself that it was a "pinched nerve". After suffering for a few more weeks I got a referral to a neurologist. He confirmed that I did not have CTS, and even though my GP had ruled this out I was still relieved. CTS meant surgery. The neurologist stuck a needle in a couple of places in my hand and arm and looked at some monitor. He said "well, it's not a pinched nerve". He gave me a prescription and off I went. I never had it filled. Know why? My arm stopped hurting. Did the needles do it? Nah. It was being told that after weeks of being sick (the flu, then the arm pain), and working myself up to basically one tense muscle mass that there was nothing wrong with me. The pain was real, I didn't imagine it. But I think my tension, or the why I was in constant awareness of the arm pain made me hold it in a certain way or not move it, whatever, that kept the pain there. How many acupuncture customers do the same thing? They get relief because they believe it works, then work themselves up before the next appointment. The reader who

responded that once a quarter seemed to keep his ailment at bay. The human mind works in mysterious ways.

Lori

17 Aug 2000

I enjoy your web site, and generally find it educational, enlightening, entertaining, and an invaluable resource. I would like to make a few comments, however, with regard to your discussion of acupuncture.

As several other respondents have noted, it is unreasonable to reject acupuncture out-of-hand simply because chi theory has historically been invoked to explain its effects. The effectiveness of acupuncture and its mechanism of action are two separate issues, and should be dealt with as such.

The difficulty actually stems from your definition of acupuncture. You define acupuncture as a traditional Chinese medical technique for manipulating chi (ch'i or qi) in order to balance the opposing forces of yin and yang. Since you define acupuncture in terms of chi, you can refute acupuncture by refuting chi. I would suggest, however, that the goal of acupuncture is not to manipulate chi but to improve health; chi manipulation is simply a supposed explanatory mechanism, one which may or may not turn out to have an objective basis in reality.

My dictionary (Webster's New Collegiate 1981) defines acupuncture as an orig. Chinese practice of puncturing the body (as with needles) to cure disease or relieve pain. When defined in this way, we see that acupuncture is the practice of sticking needles into people, and thus must be evaluated on the merits of needle sticking. If it turns out that sticking needles into people can have positive health effects, acupuncture will indeed be vindicated. If it further turns out that sticking needles into people using traditional needle techniques and point combinations is more effective than other ways of sticking needles into people, then traditional acupuncture will be vindicated. However, even if we do establish that the practice of acupuncture can have health benefits, we have still said nothing about the mechanism, which is really what the concept of chi speaks to.

Chi may turn out to be a chimera metaphysical claptrap, balderdash, stuff and nonsense. It may turn out to be a useful heuristic device a poetic and metaphorical way to describe muscle tension, skin temperature, and other quite down-to-earth physical processes and correspondences. Or, it may turn out that the ancient Chinese were on to something, and that chi corresponds to some subtle but physical force, perhaps bioelectromagnetism, that we do not as yet fully appreciate. Chi may turn out to be a useful concept in our efforts to understand acupuncture, or it may turn out to be completely superfluous. And in the end, once we are confident that we fully understand what chi is and how it

relates to acupuncture, acupuncture itself will continue to be exactly as effective (or ineffective, as the case may be) as it has always been.

In short, it is not valid to define acupuncture in terms of a postulated metaphysical mechanism of action, and then discredit acupuncture by discrediting the mechanism. Such an analysis does not speak to the effectiveness of acupuncture (that is, whether sticking needles in people does any good), but only to the validity of the suggested mechanism. Certainly both the effectiveness of acupuncture and its mechanism of action are important issues. I suggest that the discussion of acupuncture on your web site would benefit were you to more clearly distinguish between the two.

Dennis Kitchen

reply: I make it clear what I mean by acupuncture, and the meaning I use is much more complete than the one in your dictionary. Most readers should be able to understand from what I have written that acupuncture in the loose sense of sticking needles into the skin is what is being tested in the Western world. Belief in chi is irrelevant to these studies.

19 Jun 2000

Your article suggests that acupuncture, while becoming more and more popular in the West, is being practised less and less in China. This is far from true. In fact the Chinese are trying very hard to combine western and traditional Chinese medicine, as was advocated by Mao Zedong. There are hospitals devoted to this purpose. They are also investigating the physical nature of qi (chi). Considerable efforts are being made to sort the wheat from the chaff, thus the banning of the fraudulent Falun Gong cult, which incorporates traditional zen and bagua (a kind of martial art,) jumbled up with superstition, pseudo- and anti-science and worship of the cult's founder Li Hongzhi.

Julian Clegg
Taiwan

18 May 2000

Your entry on "acupuncture" implies that the effectiveness of the practice is simply a placebo effect. It is my understanding that there is increasing use of acupuncture in veterinary medicine. That would, I would think, call the placebo hypothesis into doubt. (Even if the animals' owners believe in the practice, I don't see how that could affect the animals--unless of course you believe in inter-species telepathy...)

Gordon Kaswell

reply: First, I don't claim that the effectiveness of acupuncture is simply a

placebo effect. I don't claim it is effective at all for most of the things it is supposedly able to cure.

As for animals: how does an animal tell you whether acupuncture is "effective"? Vets use all kinds of tricks to make their human customers think they're getting their money's worth. The fact that acupuncture is used by some veterinarians does not mean it is effective. No vet goes to veterinary school to learn acupuncture, so if acupuncture is used, it is most likely used in conjunction with traditional therapies and drugs. True, one can't prove it wasn't the acupuncture that helped the animal get back on all fours, but we can't prove it was, either.

07 Jul 1999

It seems the "acupuncture works" defense could equally be applied to gurus. In India snake-bite victims are usually taken to the local guru (magic man). About 90 percent of the time the snake-bite victim makes a full recovery. Gurus work! Or do they...

About 90 per cent of snake bites in India are from snakes that are not venomous. Provided the guru does nothing to harm the victim, he or she will make a full recovery. The other 10 percent always die.

It's not good enough to look at the outcome and say "it works" (at least most the time). Better information could save 90 percent of Indian snake bite victims a trip to the guru. The others 10 per cent could save much more.

By the way, the snake bite anecdote come from the movie "guru busters" which I'm pleased to see gets a mention in your dictionary.

Matt Crowe
Sydney, Australia

31 Aug 1999

Regarding the recently posted reader comment by Simone Kissane regarding accupuncture and chi dated Aug. 23, 1999, and your reply:

In defenses of metaphysical claims, I often encounter the argument that some particular posited metaphysical phenomenon is not an invalid construction or improvable proposition merely because it cannot be observed. The defender ventures that because atoms or electromagnetic fields cannot be seen, and yet the scientific "establishment" grants them reality, it is merely a case of prejudice that we do not also grant to chi, body meridians, crystal power, the astral plane, god, or the like, the same degree of existence. Putting aside the finer points of logical fallacy often present in such arguments, it has always

been one of my pet peeves, as an atomic physicist, to see that people aren't really aware that one can "see" atoms. (I think there's a lot of science information with bearing on areas of metaphysical speculation that hasn't percolated to the general public. This seems to be a historical pattern...) It's as if people were to say "you can't see wind, either, and yet we say that wind exists." Duh. I don't know what those people are thinking when they see the trees shake and smoke drifting horizontally under the action of some mysterious force...

It's about the same with atoms these days. Naturally, it requires some technological intervention to see atoms, but I can tell you that I have seen a single atom. Yep. With nothing more than a high-quality camera lens to focus the atom's light for me. It was a barium atom, and it was blue, and small, and surrounded by darkness. Now granted, what one actually sees is the light emitted by the atom as it sits in a trap (made of electromagnetic fields), not the atom itself, but then we're into a bit of a quandary about what it means to "see" something (quantum mechanically versus classically), which is not what most metaphysical claim defenders have in mind in raising this argument. So attached is a nice image from a group at the National Institute of Standards and Technology of several trapped atoms (ionized atoms, actually) of mercury, illuminated by resonant ultraviolet light, all in a row. Their website is full of papers and descriptions of trapping ions in little groups. They can make movies of clouds of small numbers of ions in little clouds wiggling back and forth under the influence of electromagnetic fields.

<http://www.boulder.nist.gov/timefreq/ion/index.htm>

There's the issue of the mediating influence of the camera to detect the ultraviolet light, but as I say, you can see other types of atoms' fluorescence with the unaided eye. I trap sodium atoms myself -- we can make clouds of hundreds to millions of atoms hanging suspended by electromagnetic fields in empty space. It could be logically possible that the clouds we see aren't atoms, but I don't see how you can make that argument with single trapped atoms or ions.

Another technology capable of resolving individual atoms is Scanning Tunneling Electron Microscopy (STEM), a subfield of Atomic Force Microscopy (AFM). I've attached an image from a group at Amherst College of individual carbon atoms in graphite.

<http://www.amherst.edu/~dfpadowi/menu.html>

This is just an example. You can image all kinds of different atoms (some make better pictures than others) and molecules at fantastic resolutions. This technology is less satisfying as a refutation of the argument "you can't SEE atoms either" because it requires the intervention of a larger number of pieces of technical equipment (i.e. a computer to collate the data into an image). But

there it is -- you're looking at the electron distribution of individual atoms on a surface. You can "see" the shapes of the atoms and the molecular bonds.

What's more, electromagnetic fields aren't invisible, either. Nope. You can see them. Nearly everyone can. Electromagnetic fields of a particular frequency range is called light. Wow. I recall an amusing anecdote as a graduate student: a grad student colleague of mine was married to a very nice woman who was worried about the biological effects of extremely low frequency electromagnetic radiation (the power line, electric blanket, brain cancer issue...), particularly on her children. She had listened to a hysterical report on the radio by some yutz investigator about how every home should have an electromagnetic field detector to see what terrible danger we were all living in. She called up her husband at work asking if he had an electromagnetic field detector in the lab and he said "Well, sure, but you've already got two of them at home, dear -- try your eyes." She really got pretty angry at what she took to be a glib answer.

I admit, it's not much in the way of dispelling ignorance and combating superstitious belief, but it's one of my pet peeves in arguments because it's just so wrong. I wonder if you'd consider discussing this particular argument on your website as I seem to encounter it so often. But it's probably just a bias effect with me.(!) The point is that the things claimed to be "just theories" (atoms, gravity, electromagnetic fields, the Big Bang, quarks) in science have observable, testable consequences that anyone can see.

I continue to enjoy your website and find it very informative.

Paul Vetter

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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Readers are encouraged to send *Mass Media Bunk* material to: btcarrol@skepdic.com

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

7

October. *Los Angeles Times*. [Andrew Weil, M.D.](#), "**In the medicine chest, a place for herbs.**" This article begins by making a plea for herbal remedies while claiming that the *New England Journal of Medicine* attacked herbal remedies in a recent editorial. He also claims that a study done at Stanford University indicates that some 70% of us are using "alternative" medicine, i.e., medicine that does not include drugs or surgery. However, the article quickly degenerates into a paranoid whining about how the big bad bullies of real medicine have hogged all the money for research and that's why naturopaths and homeopaths can't do science. Weil thinks we should fund "integrative medicine" (i.e., whatever spiritual hocus-pocus is suggested by whatever shaman who happens to be in the neighborhood). If only these quackmeisters had the funds they could prove the real value of shark cartilage or bee pollen. But the big bullies at the A.M.A. have all the resources. The same kind of pathetic plea was made in the 1950s and 60s by parapsychologists. The only reason they couldn't prove ESP, remote viewing, etc., and collect their deserved Nobel Prizes was that the real scientists had a good 'ol boys club and excluded them from participation. They couldn't get university jobs where all the research was done. So now they have departments and labs all over the world and what have they discovered that is of any value to anyone? They've proved only that whining loud enough and long enough pays off. The same tactic seems to be working for the "alternative" folks. The National Institutes of Health has upped the budget for the "Alternative" division to some [\\$20,000,000 a year](#).

November 3, 1998. Update. [Bastyr University](#), a naturopathic college in Bothell, Washington, announced it will be the home of the new National Center for Complementary and Alternative Medicine. Congress has approved \$50,000,000 for the center, which will look for ways to integrate Chinese medicine, homeopathy and Ayurvedic medicine into mainstream health care.

Also, [Bastyr](#) will be a title sponsor of the [International Conference on Integrative Medicine](#), which will be held at the Washington State Convention & Trade Center, April 30 through May 2, 1999.

astrology on the attack

Don't be surprised if we next hear from the astrologers demanding their "rightful" place in our universities. Ivan Kelly, foremost critic of astrology (see "further reading" under the [astrology](#) entry in the Skeptic's Dictionary), sent me a copy of a troublesome article by astrologer Valerie Vaughan. "Debunking the Debunkers: Lessons to Be Learned," appeared in Aug/Sept 1998 issue of *The Mountain Astrologer*. Vaughan claims that astrologers are persecuted by establishment science. That is why astrologers can't get "access to research funding." And that is why astrologers fail to design "research protocols and run controlled tests in order to

supply evidence for their art." Yet, in the same article Vaughan also claims that "astrology is not a science in the same sense as chemistry or physics....At most, it might be considered a social science."

Having firmly established that astrology is a social science, she then notes that "other social sciences, such as history, are not regularly attacked for their failure to apply scientific methodology in a laboratory setting." How true. Apparently, Ms. Vaughan does not understand that scientific methodologies can be and are regularly applied outside a lab in the social sciences. Some of these methodologies are based upon logical principles such as [Mill's Methods](#), which most astrologers do not seem to believe apply to their discipline. Some of these methodologies involve the use of statistical analysis of data. Vaughan understands the need for statistical analysis, but does not believe the usual scientific protocols apply to astrology. She says that scientists "insist on statistical analysis using random samples. But astrology cannot be proved or disproved using random samples because astrology is based on the premise that *conditions are never random*."

A scientifically minded person might think Vaughan is wrong, considering all the tests done using random samples of both subjects and astrological readings that have shown that astrology has no significant predictive value. But Vaughan has something else in mind. Those studies made the assumption

that any time is just as good as another to perform a test of astrology, but what if you're testing whether Pisces is less aggressive than Aries, and it so happens that Mars is rising during the test? Or suppose that preliminary research does reveal some validity in astrology, but in a later attempt at replicating the results, the Moon is void of course or Neptune is rising? Of course the results will be inconclusive!

Further complicating matters, she says, is that when scientists (read "non-astrologers") test astrology they test parts of a person's chart. They ignore "the wholeness of a chart." Thus they commit the [fallacy of composition](#) (not her term): they assume "the whole equals the sum of its parts."

Astrology is incredibly complex; there are innumerable variables which must be considered before an astrologer can confidently make a statement. Practitioners of astrology know that no one factor, such as the Moon in Aquarius, can 'mean' anything in an absolute sense. That Aquarian Moon could be out-of-bounds, in a different house, opposed Saturn, or affected by any number of other conditions that modify its significance.

Vaughan has no awareness that it is this very complexity which marks astrology as a pseudoscience. Nothing could ever disprove it. Astrology can explain everything that happens, even contradictory events. There is always some ready [ad hoc hypothesis](#) to explain away any apparent refuting data.

However, what is disturbing about Vaughan's article is not her profound misunderstanding of science and scientific methodologies, but her call to astrologers

to take to the road like the [creationists](#) did a few years ago and go on the attack. She is outraged that there are now textbooks in our schools that "contain entire units or learning activities aggressively aimed at teaching students to distinguish between science and 'pseudoscience.'" Worst of all, astrology is often used as the prototypical pseudoscience. This must be changed, she says. The debunkers of astrology are "intellectual control junkies who cannot bear the thought of a phenomenon they can't explain." The reason astrology is so badly treated is because mainstream academia is afraid of "losing control, power, and status. Because of their need for intellectual and financial control, they keep expanding their territory, applying the scientific approach to areas that are just plain none of their business."

According to Vaughan, "scientist debunkers [of astrology] have entered the realm of public school education, but what else would you expect with Pluto currently in Sagittarius?" (What was that about nothing can mean anything in an absolute sense?) That is not all. Vaughan invites us to go with her down the slippery slope to envision science "infiltrating" the humanities, religion, philosophy, ethics--where "even poetry and drama are at risk."

Vaughan's article is primarily a call to action. She urges astrologers not to sit back and be persecuted by Science. She advises that astrologers try to get astrology into the public school curriculum under the guise of "multicultural frameworks."

Since every culture in the world has developed a form of astrology, it is inherently diverse....A possible tactic is to approach the school authorities about admitting Western Astrology as a valid cultural tradition, and see what happens.

Another approach, she says, is to try to take advantage of "a new educational craze which emphasizes student participation."

The idea here is that, if students show an interest in a particular question (no matter how unrelated it is to the established curriculum), teachers are supposed to follow the direction of inquiry and incorporate it into the lesson. In other words, if students in an astronomy class show an interest in astrology, the new standards stipulate that the teacher shouldn't say that this is a topic students are not supposed to be learning. It will be interesting to see how this kind of situation is handled, because it is in direct confrontation with the standards that allow science teachers to debunk astrology under the guise of instruction in science history, 'critical thinking,' and scientific method.

The reader might laugh at this, thinking that astrologers aren't going to get that close to any school curriculum. Think again. Astrologers have children and can belong to the P.T.A. Their kids can bring them to school for show-and-tell. Or, they could have credentials like Vaughan. She has a masters degree in Information Science and is the director of a science education library, where her duties include staying current with "guidelines and trends in science teaching, and to review the latest curriculum materials available."

[update: Astrologers start their own college in Washington](#)

further reading

- "'Debunking the Debunkers' - A Response to an Astrologer's Debunking of Skeptics" by I.W. Kelly, *Skeptical Inquirer* Nov/Dec 1999.

October 25-31 has been declared "Haunted History Week" by the so-called History Channel. Stories on [ghosts](#) and [haunted houses](#) and places will be featured in honor of that most important annual historical event: [Halloween](#). I am sure they apologize to viewers who were looking forward to a dozen movies set in Nazi Germany.

[September 1998. Discover Magazine. "Needles and Nerves," by Catherine Dold.](#)

This article claims that a physicist has some "high-tech" evidence supporting the claim that [acupuncture](#) "has a real effect on the body." What starts off as an anecdote about 62-year old Zang-Hee Cho who fell down and hurt himself, but had his pain relieved in ten minutes by an acupuncturist, deteriorates into a pseudoscientific argument of minimal significance.

While sticking needles into a few student volunteers, he took pictures of their brains and discovered that by stimulating an acupuncture point said to be associated with vision-but that is nowhere near anything known to be connected to the eyes-he could indeed trigger activity in the very part of the brain that controls vision. There just might be something to this acupuncture thing, he figured.

This is very unscientific thinking. Before making such a logical leap, Dr. Cho should first have consulted with a neuroscientist. Just thinking about something visual will stimulate the visual cortex and there is no connection between stimulating the visual cortex and healing the eye. Even if sticking needles into the foot, where the traditional points associated with eye health and disease are located, did stimulate the visual cortex, it would be irrelevant to curing eye problems. If stimulating the visual cortex could heal the eye, then all one would have to do would be to look at things or imagine looking at things to heal the eye. We could fire all the optometrists and ophthalmologists as quacks.

Acupuncture claims that by sticking needles into certain points on the body, one can heal the eye by unblocking [chi](#) and restoring a proper balance of [yin and yang](#). Why would anyone think that stimulating the visual cortex has anything to do with healing the eye, unblocking chi or affecting yin and yang? Well, one could assume this is the case and simply beg the question, which is what Dr. Cho seems to have done. When confronted with the fact that some of his twelve subjects showed an increase and some a decrease of activity in the visual cortex when given acupuncture, Cho attributed this data not as refuting his hypothesis but as supporting it! Those who did not show an increase in visual cortex activity have too much yin! This is a nice [ad hoc hypothesis](#) to boot. No matter what results he got, Dr. Cho could explain the data in terms of yin and yang. Nothing could refute his hypothesis. There could be no

clearer case of pseudoscientific reasoning.

In response to a personal e-mail from Dold which she does not want published, I am adding the following comments.

Dold's article is not *just* a case of reporting on a pseudoscientific thinker (Dr. Cho) without critical comment. She does quote Dr. Wallace Sampson as saying that "Cho's paper proves nothing....It's a simple case of pseudoscience."

However, the only supportive evidence Sampson allegedly provided was that "the study was too small and poorly controlled to detect real effects." Those comments do not address the *pseudoscience* issue. Dr. Sampson, a rabid critic of "alternative" health practices, is likely to have had a lot more to say regarding the pseudoscientific nature of Cho's research. That he wasn't quoted further, as well as other omissions, indicate that the author does not have a clear idea of pseudoscience.

She also quotes Dr. Bruce Pomerantz, a neuroscientist at the University of Toronto, as saying "People have looked for meridians but haven't found anything.... They've tried to measure [qi](#) without success. But the failure to find something doesn't mean it doesn't exist." Pomerantz is right, of course, but scientists don't investigate *metaphysical* entities such as qi, meridians, or [ying/yang](#)....unless they don't know the difference between science and metaphysics.

Dold does a good job of distinguishing two types of "acupuncture" studies. One type indicates that sticking needles into various traditional acupuncture points stimulates the production of pain killers such as endorphins. The other type indicates that stimulating certain traditional acupuncture points triggers brain activity not associated with the body part stuck with a needle. Cho's is of the latter type. He stuck a needle into the toe and found (using MRI) that he thereby stimulated a part of the brain associated with the visual system.

Cho found that three of his subjects showed more activity (more oxygen flow) in the brain, while the other three showed less activity (less oxygen), indicating that stimulating the toe may increase or decrease activity in the part of the brain associated with visual activity. Dold, however, makes no comment when Cho gives a metaphysical explanation for his confusing results. Cho finds an acupuncturist who explains this anomaly as due to differences of yin and yang in the subjects. The issue then shifts from Cho's study to the acupuncturist's seemingly magical knowledge:

...without seeing the data, the practitioner correctly pointed out who had shown an increase in activity (yang) and who had had a decrease (yin) in 11 of 12 cases. "I don't know how to explain it," Cho says ([Dold](#)).

Dold shows no skepticism at this anecdote, nor any interest in noting that Cho and his acupuncturist are not now discussing anything remotely scientific.

Dold recognizes that "Like many preliminary scientific reports, Cho's small study raises more questions than it answers and that "he has demonstrated new functional effects of acupuncture." Still, I think her article is misleading. The article claims to

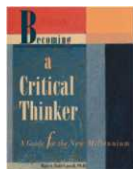
answer the skeptics who are "reluctant to accept that acupuncture has a real effect on the body." Skeptics are aware of the fact that sticking needles into people has a real effect on the body. Discovering that sticking a needle into the toe affects a part of the brain associated with the visual system could be of great importance. But no scientist will establish the value of this effect by looking for qi, meridians or differences in yin and yang.

Pseudoscientists do not distinguish what can be empirically tested from what cannot. To write an article that suggests that the two can commingle in the high-tech lab is to promote a pseudoscientific argument. The likelihood that Cho is going to "push the scientific frontier a little further by using fMRI (functional magnetic resonance imaging) and other imaging systems to explore connections between acupoints and the brain" seems remote given his methodology. He should stick to physics, where presumably his methodologies are a bit more orthodox, and leave neuroscience to scientifically-minded neuroscientists, not to the likes of Dr. Pomerantz who seems to think there is hope of finding empirical evidence for metaphysical entities.

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[More bunk](#) 



ad hoc hypothesis

An ad hoc hypothesis is one created to explain away facts that seem to refute one's theory. Ad hoc hypotheses are common in paranormal research and in the work of [pseudoscientists](#). For example, [ESP](#) researchers have been known to blame the hostile thoughts of onlookers for unconsciously influencing pointer readings on sensitive instruments. The hostile vibes, they say, made it impossible for them to duplicate a positive ESP experiment. Being able to duplicate an experiment is essential to confirming its validity. Of course, if this objection is taken seriously, then no experiment on ESP can ever fail. Whatever the results, one can always say they were caused by paranormal psychic forces, either the ones being tested or others not being tested.

Martin Gardner reports on this type of ad hoc hypothesizing reaching a ludicrous peak with parapsychist Helmut Schmidt who put cockroaches in a box where they could give themselves electric shocks. One would assume that cockroaches do not like to be shocked and would give themselves shocks at a chance rate or less, if cockroaches can learn from experience. The cockroaches gave themselves more electric shocks than predicted by chance. Schmidt concluded that "because he hated cockroaches, maybe it was his pk that influenced the randomizer!" (Gardner, p. 59)

Ad hoc hypotheses are common in defense of the pseudoscientific theory known as [biorhythm theory](#). For example, there are very many people who do not fit the predicted patterns of biorhythm theory. Rather than accept this fact as refuting evidence of the theory, a new category of people is created: the arrhythmic. In short, whenever the theory does not seem to work, the contrary evidence is systematically discounted. Advocates of biorhythm theory claimed that the theory could be used to accurately predict the sex of unborn children. However, W.S. Bainbridge, a professor of sociology at the University of Washington, demonstrated that the chance of predicting the sex of an unborn child using biorhythms was 50/50, the same as flipping a coin. An expert in biorhythms tried unsuccessfully to predict accurately the sexes of the children in Bainbridge's study based on Bainbridge's data. The expert's spouse suggested to Bainbridge an interesting ad hoc hypothesis, namely, that the cases where the theory was wrong probably included many homosexuals with indeterminate sex identities!

Astrologers are often fond of using statistical data and analysis to impress us with the scientific nature of [astrology](#). Of course, a scientific analysis of the statistical data does not always pan out for the astrologer. In those cases, the astrologer can make the data fit the astrological paradigm by the ad hoc hypothesis that those who do not fit the mold have other, unknown influences that counteract the influence of the dominant planets.

Using ad hoc hypotheses is not limited to pseudoscientists. Another type of ad

hoc hypothesis occurs in science when a new scientific theory is proposed which conflicts with an established theory and which lacks an essential explanatory mechanism. An ad hoc hypothesis is proposed to explain what the new theory cannot explain. For example, when Wegener proposed his theory of continental drift he could not explain how continents move. It was suggested that gravity was the force behind the movement of continents, though there was no scientific evidence for this notion. In fact, scientists could and did show that gravity was too weak a force to account for the movement of continents. Alexis du Toit, a defender of Wegener's theory, argued for radioactive melting of the ocean floor at continental borders as the mechanism by which continents might move. Stephen Jay Gould noted that "this ad hoc hypothesis added no increment of plausibility to Wegener's speculation." (Gould, p. 160)

Finally, rejecting explanations that require belief in occult, supernatural or paranormal forces in favor of simpler and more plausible explanations is called applying [Occam's razor](#). It is not the same as ad hoc hypothesizing. For example, let's say I catch you stealing a watch from a shop. You say you did not steal it. I ask you to empty your pockets. You agree and pull out a watch. I say, "Aha!, I was right. You stole the watch." You reply that you did not steal the watch, but you admit that it was not in your pocket when we went into the store. I ask you to explain how the watch got into your pocket and you say that you used telekinesis: you used your thoughts to transport the watch out of a glass case into your pocket. I ask you to repeat the act with another watch and you say "ok." Try as you will, however, you cannot make a watch magically appear in your pocket. You say that there is too much pressure on you to perform or that there are too many bad vibes in the air for you to work your powers. You have offered an ad hoc hypothesis to explain away what looks like a good refutation of your claim. My hypothesis that the watch is in your pocket because you stole it, is not an ad hoc hypothesis. I have chosen to believe a plausible explanation rather than an implausible one. Likewise, given the choice between believing that my headache went away of its own accord or that it went away because some nurse waved her hands over my hand while chanting a mantra, I will opt for the former every time.

It is always more reasonable to apply Occam's razor than to offer speculative ad hoc hypotheses just to maintain the possibility of something supernatural or paranormal.

See related entries on [cold reading](#), [communal reinforcement](#), [control study](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), and [wishful thinking](#).

further reading

[reader comments](#)

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pseudoscience

A pseudoscience is set of ideas based on theories put forth as scientific when they are not scientific.

Scientific theories are characterized by such things as (a) being based upon empirical observation rather than the authority of some sacred text; (b) explaining a range of empirical phenomena; (c) being empirically tested in some meaningful way, usually involving testing specific predictions deduced from the theory; (d) being confirmed rather than falsified by empirical tests or with the discovery of new facts; (e) being impersonal and therefore testable by anyone regardless of personal religious or metaphysical beliefs; (f) being dynamic and fecund, leading investigators to new knowledge and understanding of the interrelatedness of the natural world rather than being static and stagnant leading to no research or development of a better understanding of anything in the natural world; and (g) being approached with skepticism rather than gullibility, especially regarding paranormal forces or supernatural powers, and being fallible and put forth tentatively rather than being put forth dogmatically as infallible.

Some pseudoscientific theories are based upon an authoritative text rather than observation or empirical investigation. [Creationists](#), for example, make observations only to confirm infallible dogmas, not to discover the truth about the natural world. Such theories are static and lead to no new scientific discoveries or enhancement of our understanding of the natural world.

Some pseudoscientific theories explain what non-believers cannot even observe, e.g. [orgone energy](#).

Some can't be tested because they are consistent with every imaginable state of affairs in the empirical world, e.g., [L. Ron Hubbard's engram theory](#).

Some pseudoscientific theories can't be tested because they are so vague and malleable that anything relevant can be [shoehorned](#) to fit the theory, e.g., the [enneagram](#), [iridology](#), the theory of [multiple personality disorder](#), the [Myers-Briggs Type Indicator](#)®, the theories behind many [New Age psychotherapies](#), and [reflexology](#).

Some theories have been empirically tested and rather than being confirmed they seem either to have been falsified or to require numerous [ad hoc hypotheses](#) to sustain them, e.g., [astrology](#), [biorhythms](#), [facilitated communication](#), [plant perception](#), and [ESP](#). Yet, despite seemingly insurmountable evidence contrary to the theories, adherents won't give them

up.

Some pseudoscientific theories rely on ancient myths and legends rather than on physical evidence, even when their interpretations of those legends either requires a belief contrary to the known laws of nature or to established facts, e.g., [Velikovsky's](#), [von Däniken's](#), and [Sitchen's](#) theories.

Some pseudoscientific theories are supported mainly by *selective* use of [anecdotes](#), intuition, and examples of [confirming instances](#), e.g., [anthropometry](#), [aromatherapy](#), [craniometry](#), [graphology](#), [metoposcopy](#), [personology](#), and [physiognomy](#).

Some pseudoscientific theories confuse [metaphysical](#) claims with empirical claims, e.g., the theories of [acupuncture](#), [alchemy](#), [cellular memory](#), [Lysenkoism](#), [naturopathy](#), [reiki](#), [rolfing](#), [therapeutic touch](#), and [Ayurvedic medicine](#).

Some pseudoscientific theories not only confuse metaphysical claims with empirical claims, but they also maintain views that contradict known scientific laws and use ad hoc hypotheses to explain their belief, e.g., [homeopathy](#).

Pseudoscientists claim to base their theories on empirical evidence, and they may even use some scientific methods, though often their understanding of a controlled experiment is inadequate. Many pseudoscientists relish being able to point out the consistency of their theories with known facts or with predicted consequences, but they do not recognize that such consistency is not proof of anything. It is a necessary condition but not a sufficient condition that a good scientific theory be consistent with the facts. A theory which is contradicted by the facts is obviously not a very good scientific theory, but a theory which is consistent with the facts is not necessarily a good theory. For example, "the truth of the hypothesis that plague is due to evil spirits is not established by the correctness of the deduction that you can avoid the disease by keeping out of the reach of the evil spirits" (Beveridge 1957, 118).

See related entries on [ad hoc hypothesis](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [pathological science](#), [the placebo effect](#), [the post hoc fallacy](#), [pseudohistory](#), [science](#), [selective thinking](#), [self-deception](#), [subjective validation](#), and [testimonials](#).

further reading

[reader comments](#)

- [The Seven Warning Signs of Bogus Science](#) by Robert L. Park

- ["Dowsing for Dollars: Fighting High-Tech Scams with Low-Tech Critical Thinking Skills"](#) by Robert Todd Carroll
- [Review of Edward Dolnick's *Madness on the Couch: Blaming the Victim in the Heyday of Psychoanalysis*](#)
- [Russell Turpin's "Characterization of Quack Theories"](#)
- ["Science and Rationalism versus Pseudoscience and Quackery,"](#) by Rasmus Jansson
- [The Crackpot Index](#) by John Baez

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[According to a Gallup poll, belief in ESP has remained steady for the past decade at 50%](#)

ESP (extrasensory perception)

Extrasensory perception is perception occurring independently of sight, hearing, or other sensory processes. People who have extrasensory perception are said to be [psychic](#). It is commonly called ESP, a term coined by [J.B. Rhine](#), who began investigating the phenomenon at Duke University in 1927. ESP refers to [telepathy](#), [clairvoyance](#), [precognition](#), and in recent years, [remote viewing](#) and [clairaudience](#). The existence of ESP and other paranormal powers such as [telekinesis](#), are disputed, though systematic experimental research on these subjects, known collectively as [psi](#), has been ongoing for over a century in [parapsychology](#).

Most of the evidence for ESP is [anecdotal](#) and is dismissed by skeptics as based on one or several of the following:

- incompetence or fraud by [parapsychologists](#) or believers in psi
- trickery by [mentalists](#)
- [cold reading](#)
- [subjective validation](#)
- [selective thinking](#) and [confirmation bias](#)
- poor grasp of probabilities and of the [law of truly large numbers](#)
- [shoehorning](#), [retrospective clairvoyance](#), and [retrospective falsification](#)
- gullibility, [self-deception](#), and [wishful thinking](#)

The following case is typical of those cited as proof of ESP. It is unusual only in that it involves belief in [a psychic dog](#), rather than a psychic human. The dog in question is a terrier who has achieved fame as having ESP as exhibited by his ability to know when his owner, [Pam Smart](#), is deciding to come home when she is away shopping or on some other business. The dog's name is Jaytee. He has been featured on several television programs in Australia, the United States and England, where he resides with Pam and her parents, who were the first to perceive the dog's psychic abilities. They observed that the dog would run to the window facing the street at precisely the moment Pam was deciding to come home from several miles away. (How the parents knew the precise moment Pam was deciding to come home is unclear.)

Parapsychologist [Rupert Sheldrake](#) investigated and declared the dog is truly psychic. Two scientists, [Dr Richard Wiseman](#) and Matthew Smith of the University of Hertfordshire, tested the dog under controlled conditions. The scientists synchronized their watches and set video cameras on both the dog and its owner. Alas, several experimental tries later, they had to conclude that [the dog wasn't doing what had been alleged](#). He went to the window and did so quite frequently, but only once did he do so near the exact time his master

was preparing to come home and that case was dismissed because the dog was clearly going to the window after hearing a car pull up outside his domicile. Four experiments were conducted and the results were published in the *British Journal of Psychology* (89:453, 1998).

Much of the belief in ESP is based upon apparently unusual events that seem inexplicable. However, we should not assume that every event in the universe can be explained. Nor should we assume that what is inexplicable requires a paranormal (or supernatural) explanation. Maybe an event can't be explained because there is nothing to explain.

Most ESP claims do not get tested, but parapsychologists have attempted to verify the existence of ESP under controlled conditions. Some, like [Charles Tart](#) and [Raymond Moody](#), claim success; others, such as [Susan J. Blackmore](#), claim that years of trying to find experimental proof of ESP have failed to turn up any proof of indisputable, repeatable psychic powers. Defenders of psi claim that the [gansfeld experiments](#), the [CIA's remote viewing experiments](#) and attempts to influence randomizers at [Princeton Engineering Anomalies Research](#) have produced evidence of ESP.

Psychologists who have thoroughly investigated parapsychological studies, like [Ray Hyman](#) and Blackmore, have concluded that where positive results have been found, the work was fraught with fraud, error, incompetence, and statistical legerdemain.

See related entries on [astral projection](#), [auras](#), [Edgar Cayce](#), [clairaudience](#), [clairvoyance](#), [dermo-optical perception](#), [dreams](#), [extraordinary human functions](#), [ganzfeld experiment](#), [mentalists](#), [Raymond Moody](#), [optional starting and stopping](#), [paranormal](#), [parapsychology](#), [precognition](#), [psi](#), [psi-missing](#), [psychic](#), [psychic photography](#), [psychic surgery](#), [psychokinesis](#), [remote viewing](#), [retrocognition](#), [retrospective falsification](#), [séance](#), [shotgunning](#), [Charles Tart](#), [telepathy](#), and [James Van Praagh](#).

further reading

[reader comments \(psi\)](#)

- [New Analyses Raise Doubts About Replicability of ESP Findings](#) by Scott O. Lilienfeld, *Skeptical Inquirer*, Nov/Dec 1999
- [The Telepathic Terrier](#)
- [Richard Wiseman's Guidelines for research in parapsychology](#)

[Alcock, James E. *Science and Supernature: a Critical Appraisal of Parapsychology* \(Buffalo, N.Y.: Prometheus Books, 1990\).](#)

[Frazier, Kendrick. editor, *Science Confronts the Paranormal* \(Buffalo, N.Y.: Prometheus Books, 1986\).](#)

[Gardner, Martin. *Fads and Fallacies in the Name of Science* \(New York: Dover Publications, Inc., 1957\), ch. 25.](#)

[Gardner, Martin. *Science: Good, Bad and Bogus* \(Buffalo, N.Y.: Prometheus Books, 1981\), chs. 7, 13, 18, 19, 21, 27 and 31.](#)

[Gordon, Henry. *Extrasensory Deception: Esp, Psychics, Shirley MacLaine, Ghosts, Ufos* \(Buffalo, NY: Prometheus Books, 1987\).](#)

[Hansel, C.E.M. *The Search for Psychic Power: ESP and Parapsychology Revisited* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)

[Hines, Terence. *Pseudoscience and the Paranormal* \(Buffalo, NY: Prometheus Books, 1990\).](#)

[Hyman, Ray. *The Elusive Quarry : a Scientific Appraisal of Psychological Research* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

[Stein, Gordon. editor, *The Encyclopedia of the Paranormal* \(Buffalo, N.Y.: Prometheus Books, 1996\).](#)

Wiseman, Richard, and Smith, Matthew; "Can Animals Detect When Their Owners Are Returning Home?" *British Journal of Psychology*, 89:453, 1998.

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biorhythms

The theory of biorhythms is a [pseudoscientific](#) theory that claims our daily lives are significantly affected by rhythmic cycles overlooked by scientists who study biological rhythms. Biochronometry is the scientific study of rhythmicity and biological cycles or "clocks," such as the circadian (from the Latin *circa* and *dia*; literally, "about a day"). Circadian rhythms are based upon such things as our sensitivity to light and darkness, which is related to our sleep/wakefulness patterns. Biorhythms is not based upon the scientific study of biological organisms. The cycles of biorhythm theory did not originate in scientific study, nor have they been supported by anything resembling a scientific study. The theory has been around for over one hundred years and there has yet to be a scientific journal that has published a single article supporting the theory. There have been some three dozen studies supporting biorhythm theory but all of them have suffered from methodological and statistical errors (Hines, 1998). An examination of some 134 biorhythm studies found that the theory is not valid (Hines, 1998). It is empirically testable and has been shown to be false. Terence Hines believes that this fact implies that biorhythm theory "can not properly be termed a pseudoscientific theory." However, when the advocates of an empirically testable theory refuse to give up the theory in the face of overwhelming evidence against it, it seems reasonable to call the theory pseudoscientific. For, in fact, the adherents to such a theory have declared by their behavior that there is nothing that could falsify it, yet they continue to claim the theory is scientific.

Biorhythm theory is based more on [numerology](#), [testimonials](#) and the [Forer effect](#), mass media hype, and intuition than on scientific study. The theory originated in the nineteenth century with Wilhelm Fliess, a Berlin physician, numerologist and good friend and patient of Sigmund Freud.¹ Fliess was fascinated by the fact that no matter what number he picked he could figure out a way to express it in a formula with relation to either 23, 28 or both.² The latter number he associated with menstruation and thus when he was convinced that all the world is governed by 23 and 28, he called the 28-day period "female" and the 23-day period "male." In 1904, several years after Fliess's discovery, Dr. Hermann Swoboda of the University of Vienna, claimed he discovered these same periods on his own. In the 1920s, Alfred Teltscher, an Austrian engineering teacher, added the 'mind' period of 33 days, based upon his observation that his students' work followed a 33-day pattern. The theory was popularized in the 1970s by George Thommen (*Is This Your Day? How Biorhythm Helps You Determine Your Life Cycles*) and Bernard Gittleson (*Biorhythm--A Personal Science*). Neither book provides scientific evidence for biorhythms. They consist of little more than speculation and anecdotes. However, by now the static idea of periods was replaced with the dynamic notion of *cycles*, which are now known as the *physical*, *emotional* and *intellectual* cycles. Interestingly, not only did the "female" period become the

emotional cycle, but both men and women are said to share the same physical and emotional cycles of 23 and 28 days respectively. One might have expected that, given the different hormonal natures of males and females, the sexes might have at least some unique and distinct rhythmic cycles.

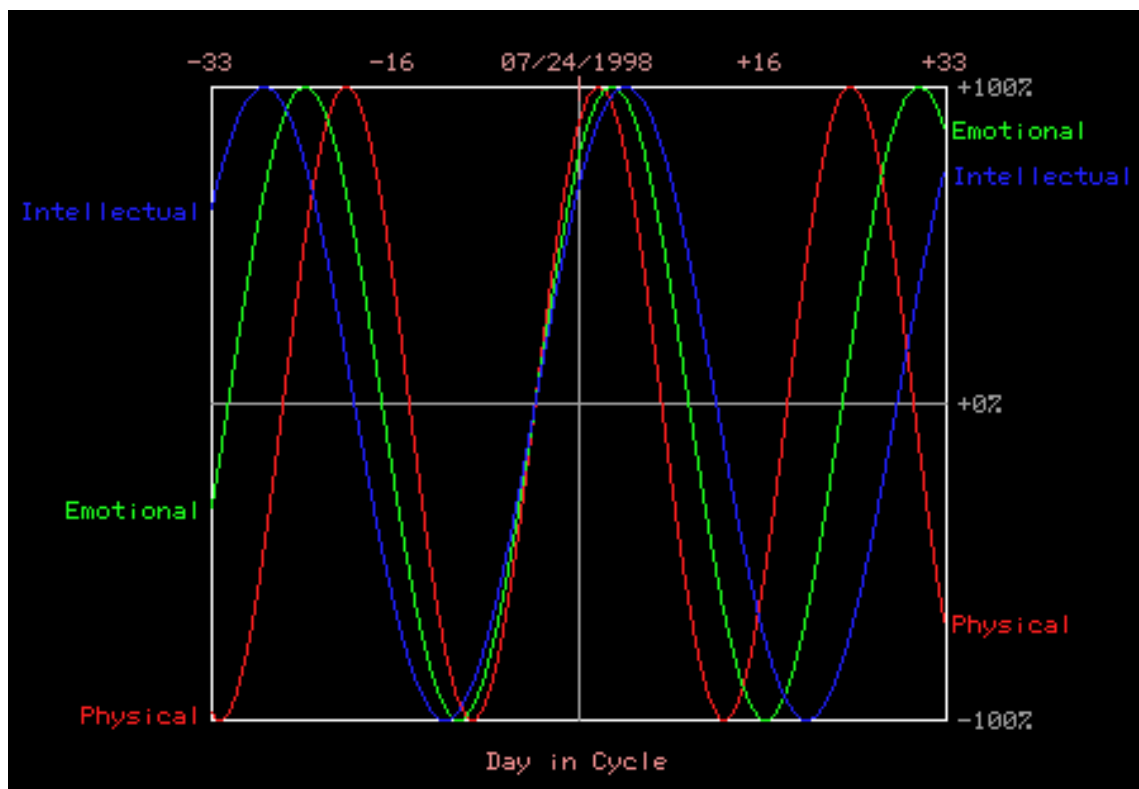
[New cycles have been added in recent years.](#) There is the 38-day *intuitional cycle*, the 43-day *aesthetic cycle*, and the 53-day *spiritual cycle*. Others claim there are [cycles that are combinations of the three primary cycles](#). The *passion cycle* is the physical joined with the emotional cycle. The *wisdom cycle* is the emotional joined with the intellectual cycle. And the *mastery cycle* is the intellectual joined with the physical cycle.

However many cycles there are, the function is the same: to predict what kind of day one is likely to have.

Generally speaking, the more positive a cycle is at any given point in time, the better one is able to interact in that arena. For example, high emotional level tends to mean that a person is more stable, is better able to make relationship decisions, and so on. This is not to say that when the cycle is in the negative range that the person is not doing well in that arena, rather, it means that it is harder to do well. --Plan exams when your Intellectual cycle is high. [[Facade](#)]

At the moment of birth, according to the theory, the biorhythmic cycles are set to zero. Knowing your birthday, the number of days you have lived and where in each cycle you are can be determined for any given day. A biorhythmic chart for July 24, 1998, for someone born four days earlier would look like this:

Biorhythm chart for a 4-day-old born on 7/20/98



The line going through the middle is the zero line. A cycle is said to be in a positive phase when above the zero line and in a negative phase when below the zero line. A cycle begins in an ascent for the first fourth of a cycle, then half of the cycle is in descent, then the last quarter of the cycle ascends back to the zero line. The cycles repeat until you die. Should you live to be something like 58 years and 66 days old, you will reach the point at which the physical, emotional and intellectual cycles return to the same point on the zero line. For some, this is a moment of "rebirth."

According to the theory, when certain points on the cycles are reached a person may enjoy special strength or suffer special weakness. "Switch point days," when cycles cross the zero line on the ascent or descent, are "critical" days. Performance on critical days is supposedly very poor. It has even been predicted that people are especially accident prone on critical days. This empirical claim is easily testable. It has been tested and shown to be false. However, any cycle with an odd number of days does not have an exact day in the middle, a fact which has led some "experts" to do some slippery math. For example, one "scientific study" said to support biorhythm theory claims that something like 60% of all accidents occur on critical days but critical days make up only 22% of all days. If true, this statistic would not likely be due to chance and biorhythm advocates could justifiably claim their theory had been confirmed by this data. However, biorhythmists include both the day before and the day after a switch point day as "critical" days. Thus, an accurate statistic would be something like *about 60% of all accidents occur on about 60% of all days, which is to be expected by chance* (Hines).

In any case, according to the theory, critical days are days you want to know about in advance so you can prepare for them. For example, if you are scheduled to take a test that will measure your thinking ability, make sure you

do not take the test on a day when your intellectual cycle is at a critical or a low point. Of course, to do well one must also get a good night's sleep, be generally healthy, eat properly, and study, but those preparations will do you no good if your intellectual cycle is not in the right spot. On the other hand, if you are a long distance runner, try to pick your next race date so that you are at a peak on your physical cycle. Of course, you must train properly, eat well, get sufficient rest, be healthy, etc., but these will not suffice if your physical cycle is at the wrong point.

The worst day of all, according to the classical (3-cycle) theory, is the "triple critical," the day when all three cycles are at a switch point. Next worst is the "double critical", when two cycles meet at the switch point. As you can imagine, it gets very complicated tracing all these cycles on their ascents, descents, switch points, etc. But it does not take a mathematician to figure out that it is going to be easy to find cases that fit the theory. For example, the physical cycle is 23 days long. That means that every 11.5 days is a physical cycle switch over day. So, the odds of, say, having a heart attack on a given physical switch over day are about 1 in 11. Most people would agree that having a heart attack is having a bad physical day. One valid empirical test of the theory would be to collect data on heart attack victims and see if significantly more than 9% (1 out of 11) had their heart attacks on physical switch over days. Instead, the usual evidence given by believers is an anecdote about Clark Gable or someone else who had a heart attack on a switch over day. There are thousands of heart attack victims each year and 1 out of 11 of them would be predicted by chance to have the attack on a switch over day. So, finding several individual cases of people who have serious physical problems on a critical physical day is to be expected, not wowed at.

The ho-hum response that anecdotes such as the Clark Gable story should evoke from a reasonable person should put one to sleep when you consider that biorhythmists generally count the day before and after a critical day as being just as bad as critical days. This means that 6 out of every 23 days (26% of our days) are danger days for the body. Thus, the odds are about one in four that any given person who has a bad physical day is at a "critical" point. Anecdotes of people having bad physical days are particularly inconsequential given such odds. A meaningful test of the theory might be to study heart attack victims. If significantly greater than 25% of the sample have attacks on a critical days, then you have a scoop.

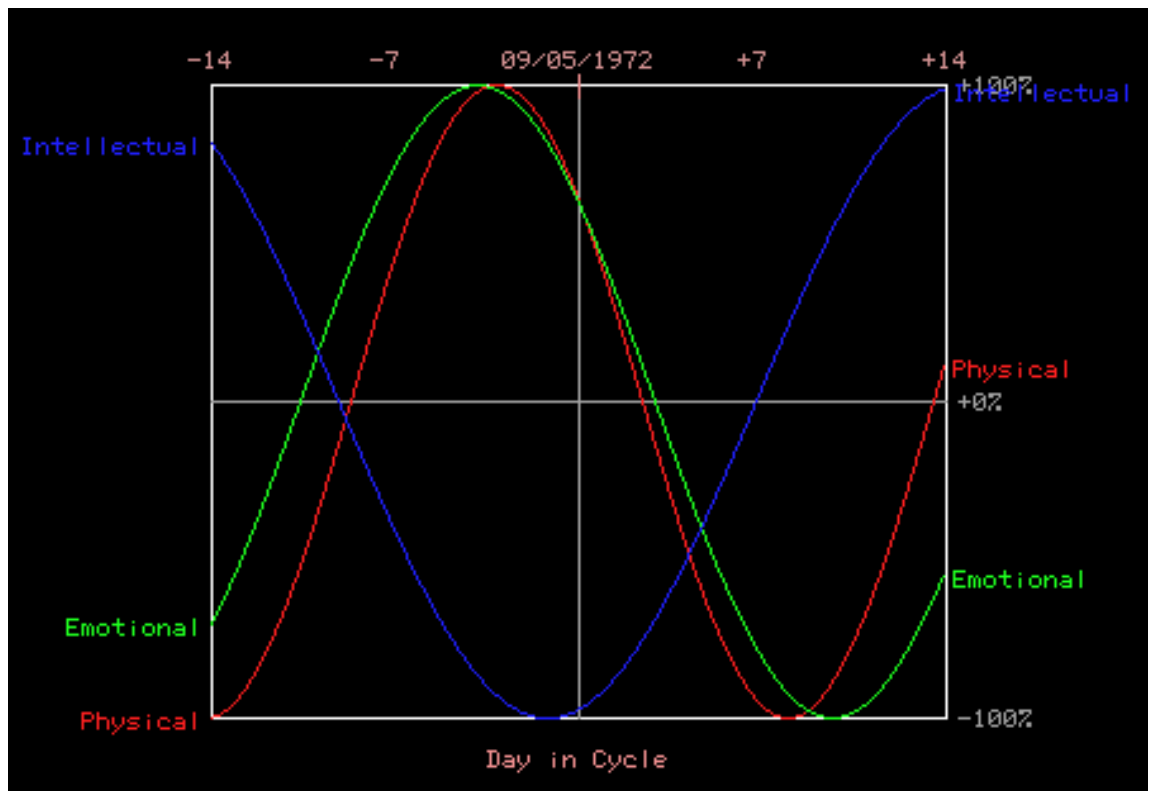
Another typical but useless test of the theory is to keep track of how accurate the theory is by charting each day and keeping a diary of your days. Actress Susan St. James, a fervid believer in biorhythms, once described on a television talk show how she had done this. If her chart predicted a low emotional day, she was upset that day. If her chart predicted a physical high, she felt great that day. On a day when her intellectual cycle was at a low, she couldn't think straight about anything. In some circles this is known as the self-fulfilling prophecy, the power of suggestion or [subjective validation](#). Whatever you call it, it isn't science.

To demonstrate the folly of using subjective validation to count as support for biorhythm theory, James Randi had George Thommen, president of Biorhythm Computers, Inc., do a biorhythm chart for Randi and his secretary. One of the listeners to Randi's radio program was selected for an experiment. She was to be given her own personal chart and she was to keep a day-by-day diary for two months and to rate her chart for accuracy. She reported that the chart had been "at least ninety percent accurate." The devious Randi had actually sent her *his own* chart. He told the subject that he had done this by mistake. She agreed to check her diary with her real chart, which Randi gave her. She reported that the new chart was even more accurate than the other one. Actually, she'd been given Randi's *secretary's* chart. This kind of data retrofitting is common among believers in such [pseudosciences](#) as [astrology](#), [graphology](#) and biorhythms. In fact, similar tests of subjective validation, with identical results, have been done on astrological charts and graphological readings. Randi's deception, of course, was not intended to disprove biorhythms, but to call attention to the problem of subjective validation, something consistently overlooked by devotees of astrology, graphology and biorhythms.

Biorhythms is a pseudoscience because there have been several meaningful tests of the theory, all failing to support it (Hines, 1991), yet its advocates refuse to give up the theory. Advocates of this theory have more [ad hoc hypotheses](#) to explain away disconfirming evidence than Galapagos has islands. My favorite is the hypothesis that some people are *arrhythmic* some or all of the time. Any contrary case can be explained away by reference to the case being arrhythmic. Another favorite ad hoc hypothesis concerns Thommen's claim that he could predict with 95% accuracy the sex of a child by the biorhythms of the mother. If, during conception, the mother's physical (masculine) cycle was at a high point, a boy was likely. If, during conception, the mother's emotional (female) cycle was at a high point, a girl was likely. A study done by W.S. Bainbridge, a professor of sociology at the University of Washington, concluded that using the biorhythm theory your chances of predicting the sex of the child were 50/50, the same as flipping a coin. A defender of the theory suggested to Bainbridge that the cases where the theory was wrong probably included many homosexuals, who have *indeterminate sex identities!*

When the anecdotes don't fit the theory, biorhythmists are likely to change the theory. For example, one of the more common ways to defend the theory has been to point out that great feats occur when high in a cycle. Defenders of the theory commonly cite the example of Mark Spitz (born 2/10/50) being in a high physical and emotional phase when he won seven gold medals in the 1972 Olympics.

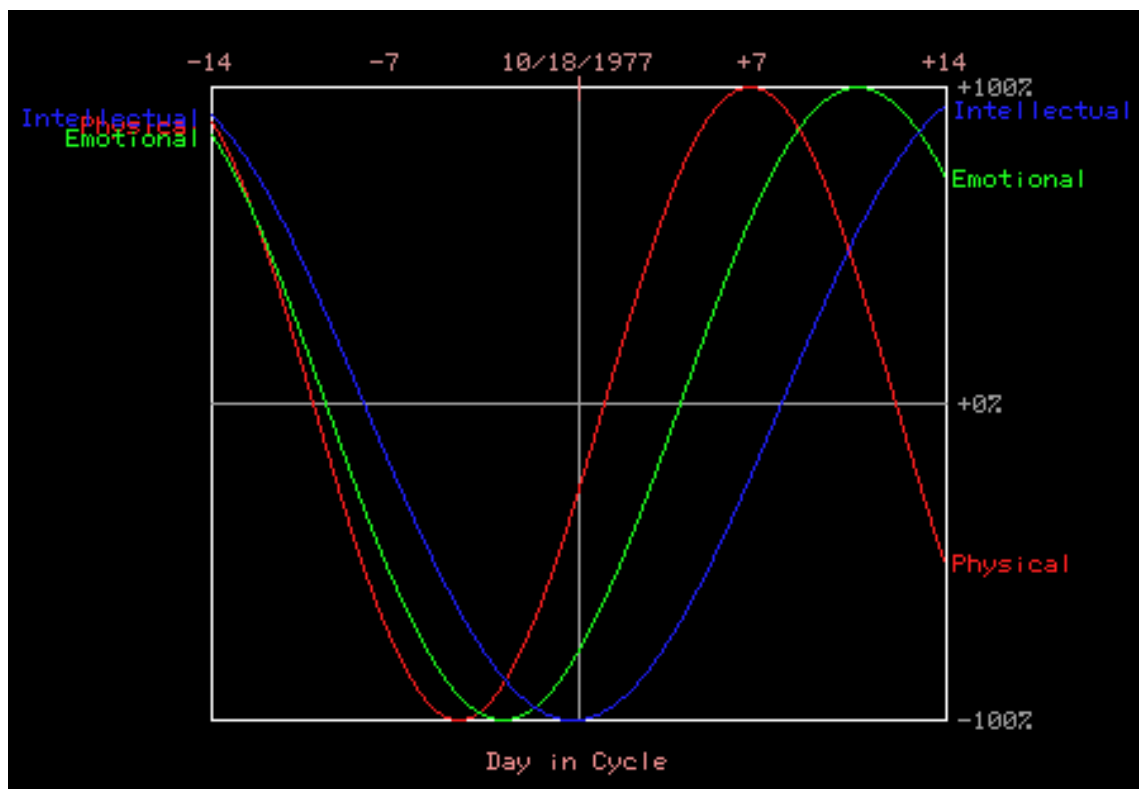
Biorhythm chart for Mark Spitz (9/5/72)



Note how Spitz's emotional and physical cycles converged on September 5, the day of [the Munich massacre](#). Coincidence? Not to inquiring minds. No doubt this is evidence of [synchronicity](#). Note, too, that his intellectual cycle was very low during this period. Why not conclude that he did so well physically because his mind was inactive. Thus, he was not distracted by doing any serious thinking, a known hindrance to athletic performance. Of course, the simplest theory is that he did so well because he was a damn good swimmer! Those of a logical bent might use [Occam's razor](#) to reject biorhythms in favor of this simpler explanation.

However, Reggie Jackson, who was inaugurated into Baseball's Hall of Fame and was born on May 18, 1946, had the greatest day in his brilliant career on October 18, 1977. On that day he hit three consecutive home runs on three consecutive pitches off three different pitchers to help the New York Yankees win the game and the World Series against the Los Angeles Dodgers. Jackson's cycles were all in the low end of their negative phases on that day.

Biorhythm chart for Reggie Jackson (10/18/77)



[Russ Streiffert has an explanation](#): "Studies have shown that location in the graphic data may be less important than trend or which way your [sic] going. This is a dynamic interpretation as opposed to earlier views. Briefly starting at the bottom of the graph we have increasing resource discharge (available)...then maximum discharge across the center line...then decreasing discharge approaching the top. Starting back down we have increasing recharge (unavailable)...maximum recharge across the center line...then decreasing recharge approaching the bottom. In the graph above, notice how Mr. Jackson's resources appear charged (available) and synchronized on October 18, 1977. While this does not constitute proof that these cycles contributed to his achievements, it appears to be an excellent correlation and is certainly not disproof. " The studies that have shown this are not cited by Mr. Streiffert.

So, when the data seems to conflict with what would be predicted by the theory, we are to engage in a new kind of interpretation. Reggie Jackson was not in a negative phase of all cycles; he was "charged and synchronized." We are to think in terms of recharging our energy as we ascend in a cycle, and discharging energy as we descend (or is it the other way around?). In this dynamic and energetic view, even days in the negative phase of a cycle can be good and days in the positive cycle can be bad and vice-versa, depending upon whether they are ascending or descending, charging or discharging, available or unavailable. Such constructions may make it impossible to refute the theory, but they render it untestable and so slippery as to be of little use for predicting the future. What was a pseudoscientific theory because its advocates continued to support it even though it failed all scientific empirical tests, is now a pseudoscience because it claims to be a scientific theory but it is not empirically testable. Everything can be made to fit the theory, even contrary readings such as those of Mark Spitz

and Reggie Jackson, who deserve more credit for their accomplishments than biorhythm theory can provide.

Notes

¹ Freud's letters to Fliess were preserved, much to Freud's dismay. They were first published in English as *Origins of Psychoanalysis: Letters to Wilhelm Fliess Drafts and Notes, 1887-1902*. Edited by Marie Bonaparte, Anna Freud and Ernst Kris, translation by Eric Mosbacher and James Strachey (London: Imago Pub. Co., 1954). A more recent translation by Jeffrey Moussaieff Masson is available: *The Complete Letters of Sigmund Freud to Wilhelm Fliess, 1887-1904* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1985). Fliess's masterpiece is entitled *The Rhythm of Life: Foundations of an Exact Biology* (Leipzig: 1906). There is a discussion of Freud, Fliess and biorhythms in Frank Sulloway's *Freud: Biologist of Mind* (Cambridge, Mass.; Harvard University Press, 1993).

² How did Fliess come up with his theory about the magic of the numbers 23 and 28? Martin Gardner writes:

Fliess's basic formula can be written $23x + 28y$, where x and y are positive or negative integers. On almost every page Fliess fits this formula to natural phenomena, ranging from the cell to the solar system....He did not realize that if any two positive integers that have no common divisor are substituted for 23 and 28 in his basic formula, it is possible to express any positive integer whatever. Little wonder that the formula could be so readily fitted to natural phenomena! [Gardner pp. 134-135]

further reading

- [Biorhythmic chart generator](#)
- [Horoscope and biorhythm readings](#)
- [Facade biorhythm chart generator](#)
- [The "science" of biorhythms](#)

[Gardner, Martin. *Science: Good, Bad and Bogus* \(Buffalo, N.Y.: Prometheus Books, 1981\), ch. 11, "Fliess, Freud, and Biorhythm."](#)

Hines, Terence M. "Comprehensive Review of Biorhythm Theory," *Psychological Reports*, 1998, 83, 19-64.

[Hines, Terence. "Biorhythm Theory: A Critical Review," in *Paranormal Borderlands of Science*, ed. Kendrick Frazier \(Amherst, N.Y.: Prometheus Books, 1991\).](#)

[Hines, Terence. *Pseudoscience and the Paranormal: A Critical Examination of the Evidence* \(Buffalo, NY: Prometheus Books, 1990\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1988\), ch. 8, "The Great Flies Fleece."](#)

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According to a Gallup poll, belief in astrology has increased from 25% to 28% over the last decade of the 20th century.

According to AC Nielsen eRatings.com, Astrology.com had 868,000 surfers the week ending Dec. 16, 2001.

astrology

...as above, so below...

"Astrology, as it is presently practiced (in either its traditional or psychological form), has no relevance to understanding ourselves, or our place in the cosmos. Modern advocates of astrology cannot account for the underlying basis of astrological associations with terrestrial affairs, have no plausible explanation for its claims, and have not contributed anything of cognitive value to any field of the social sciences. Further, astrology does not have the theoretical/conceptual resources to resolve its own internal problems adequately, or external anomalies, or to adjudicate between conflicting astrological claims or systems." -- I.W. Kelly, *Modern Astrology: A critique*, p. 931.

"You shouldn't dismiss as incredible the possibility that a long enough search might reveal a golden grain of truth in astrological superstition." -- Johannes Kepler

**If you want to know who controls your soul
don't look to Mars or Venus;
Look instead to the President
for the danger's in his penis.
[author unknown to me]**

Astrology, in its traditional form, is a type of [divination](#) based on the theory that the positions and movements of celestial bodies (stars, planets, sun, and moon) at the time of birth profoundly influence a person's life. In its psychological form, astrology is a type of New Age therapy used for self-understanding and personality analysis. (This entry concerns traditional astrology. See the entry on [astrotherapy](#) for a discussion of psychological astrology.)

The most popular form of traditional astrology is Sun Sign Astrology, the kind found in many daily newspapers which publish horoscopes. A horoscope is an astrological forecast. The term is also used to describe a map of the zodiac at the time of one's birth. The zodiac is divided into twelve zones of the sky, each named after a constellation which originally fell within its zone (Taurus, Leo, etc.). The apparent paths of the sun, the moon, and the major planets all fall within the zodiac. Because of the precession of the equinoxes, the equinox and solstice points have each moved westward about 30 degrees

in the last 2,000 years. Thus the zodiacal constellations named in ancient times no longer correspond to the segments of the zodiac represented by their signs. In short, had you been born at the same time on the same day of the year 2,000 years ago, you would have been born under a different sign.

Traditional Western astrology may be divided into tropical and sidereal. (Astrologers in non-Western traditions use different systems.) The tropical, or solar, year is measured relative to the sun and is the time (365 days, 5 hr, 48 min, 46 sec of mean solar time) between successive vernal equinoxes. The sidereal year is the time (365 days, 6 hr, 9 min, 9.5 sec of mean solar time) required for the earth to complete an orbit of the sun relative to the stars. The sidereal year is longer than the tropical year because of the precession of the equinoxes, i.e., the slow westward shift of the equinoctial points along the plane of the ecliptic at a rate of 50.27 seconds of arc per year, resulting from precession of the earth's axis of rotation. Sidereal astrology uses the actual constellation in which the sun is located at the moment of birth as its basis; tropical astrology uses a 30-degree sector of the zodiac as its basis. Tropical astrology is the most popular form and it assigns its readings based on the time of the year, while generally ignoring the positions of the sun and constellations relative to each other. Sidereal astrology is used by a minority of astrologers and bases its readings on the constellations near the sun at the time of birth.

One of the common arguments in favor of astrology is the fallacious argument from popularity and tradition: astrology is believed by millions of people and it has survived for thousands of years. These claims are true, but are irrelevant to the "truth" of astrology. The ancient Chaldeans and Assyrians engaged in astrological divination some three thousand years ago. By 450 B.C.E. the Babylonians had developed the 12-sign zodiac, but it was the Greeks--from the time of Alexander the Great to their conquest by the Romans--who provided most of the fundamental elements of modern astrology.

The spread of astrological practice was arrested by the rise of Christianity, which emphasized divine intervention and free will. During the Renaissance, astrology regained popularity, in part due to rekindled interest in science and astronomy. Christian theologians, however, warred against astrology, and in 1585 Pope Sixtus V condemned it. At the same time, the work of Kepler and others undermined astrology's tenets.

Is astrology testable?

A second argument in favor of astrology is that it is testable and there is evidence that the data support the hypothesis that there is a causal connection between heavenly bodies and human events. For example, according to the so-called "[Mars Effect](#)", great athletes are born not made. This claim is based on a statistical analysis of birth dates of great athletes and the position of Mars when they were born. It is said that the correlation is greater than one would

expect by chance. Others disagree and claim the evidence does not show a correlation that would not be expected by chance. However, even if there were a significant correlation between the position of Mars at one's birth and one becoming an exceptional athlete, that would not imply or even indicate that there is a causal connection between the position of a planet and the kind of endeavors one is likely to be good at here on earth. Correlation between x and y is not a sufficient condition for reasonable belief that x causes y. Even a statistically significant correlation between x and y is not a sufficient condition for reasonable belief in a causal connection, much less for the belief that x causes y. Correlation does not prove causality.

Correlation may not prove causality, but it is extremely attractive to defenders of astrology. For example: "Among 3,458 soldiers, Jupiter is to be found 703 times, either rising or culminating when they were born. Chance predicts this should be 572. The odds here: one million to one" (Gauquelin). I'm willing to assume that all the statistical data which show a significant correlation between various planets rising, falling, culminating, or whatever else they might be seen as doing, are accurate. However, it would be more surprising if of all the billions and billions of celestial motions conceivable, there weren't a great many that could be significantly correlated with dozens of mass events or individual personality traits.

For example, defenders of astrology are fond of noting that 'the length of a woman's menstrual cycle corresponds to the phases of the moon' and 'the gravitational fields of the sun and moon are strong enough to cause the rising and falling of tides on Earth.' If the moon can affect the tides, then surely the moon can affect a person. But what is the analog to the tides in a person? We are reminded that humans begin life in an amniotic sea and the human body is 70 percent water! If oysters open and close their shells in accordance with the tides, which flow in accordance with the electromagnetic and gravitational forces of the sun and moon, and humans are full of water, then isn't it obvious that humans must be influenced by the moon as well? It may be obvious, but the evidence from [moon studies](#) does not support it.

Astrologers emphasize the importance of the positions of the sun, moon, planets, etc., at the time of birth. But why are the initial conditions more important than all subsequent conditions for one's personality and traits? Why is the moment of birth chosen as the significant moment rather than the moment of conception? Why aren't other initial conditions such as one's mother's health, the delivery place conditions, forceps, bright lights, dim room, back seat of a car, etc., more important than whether Mars is ascending, descending, culminating or fulminating? Why isn't the planet Earth, much closer to us at birth, considered a major influence on who we are and what we become?

Other than the sun and the moon and an occasional passing comet or asteroid, most planetary objects are so distant from us that any influences they might

have on anything on our planet are likely to be wiped out by the influences of the sun and moon. Earth, and the people and things on earth that a person comes in direct contact with, are likely to be more important as influencing factors in our lives than distant heavenly bodies. What's more, if it turns out that we can determine specific effects from specific birthplace conditions, then we can control those conditions to bring about beneficial results. On the other hand, even if it were true that the position of the stars and planets is more important to your life than whether your birth was a difficult one under horrendous conditions, there is nothing we can do about the stars and there is a limit to how much control we can have over the time of a person's birth. (I am glad I won't be an astrologer in the age of test tube babies. How would I know when my client was 'born'? The birthing process isn't instantaneous. There is no single moment that a person is born. The fact that some official somewhere writes down a time of birth is irrelevant. Do they pick the moment the water breaks? the moment the first dilation occurs? when the first hair or toenail peeks through? when the last toenail or hair passes the last millimeter of the vagina or belly surface? when the umbilical cord is cut? when the first breath is taken? or the moment when the physician or nurse looks at a clock or watch [no doubt magically free from the possibility of inaccuracy] to note the time of birth?)

No one would claim that in order to grasp the effect of the moon on the tides or potatoes one must understand initial conditions of the Singularity before the Big Bang, or the positions of the stars and planets at the time the potato was harvested. If you want to know what tomorrow's low tide will be you do not need to know where the moon was when the first ocean or river was formed, or whether the ocean came first and then the moon, or vice-versa. Initial conditions are less important than present conditions to understanding current effects on rivers and vegetables. If this is true for the tides and plants, why wouldn't it be true for people?

correlation is not causality

This fascination with correlation is also found in the reasoning of those who try to make every ancient megalithic site into an astronomical observatory of some sort. Defenders of astrology should note what Aubrey Burl wrote of such reasoning.

...the odds are in favour of a good celestial sightline occurring fortuitously in almost any circle. Examine a site like Grey Croft, Cumberland,...27.1 x 24.4 m in diameter with twelve stones and an outlier, there appear to be so many possible lines and so many possible targets that to discover nothing would be improbable (Burl, 50).

Also, while it is true that the odds are inconceivably large that anyone would make more than 20 straight passes at the craps table, it's happened. Given enough craps games, the inconceivable will become the frequent. In short, what seems to defy the ["laws" of statistics](#), may not do so when examined more carefully.

Finally, there are those who defend astrology by pointing out how accurate professional horoscopes are. A colleague of mine, a history teacher with a Ph.D. in history from the University of California at Davis, practices astrology. Of course, he's high tech and has a computer program to help him do his readings. He is aware of all the arguments against astrology and even admits that logically it shouldn't work. But it does, he believes. This concept of 'works' is intriguing. What does it mean?

Basically, to say astrology *works* means that there are a lot of satisfied customers. It does *not* mean that astrology is accurate in predicting human behavior or events to a degree significantly greater than mere chance. The main support for this argument is in the form of anecdotes and [testimonials](#). There are many satisfied customers who believe that their horoscope accurately describes them and that their astrologer has given them good advice. Such evidence does not prove astrology so much as it demonstrates the effects of [cold reading](#), [the Forer effect](#), and [confirmation bias](#). Good astrologers give good advice, but that does not validate astrology. There have been several studies which have shown that people will use selective thinking to make any chart they are given fit their preconceived notions about themselves and their charts. Many of the claims made about signs and personalities are vague and would fit many people under many different signs. Even professional astrologers, most of whom have nothing but disdain for Sun Sign Astrology, can't pick out a correct horoscope reading at better than a chance rate. Yet, astrology continues to maintain its popularity, despite the fact that there is scarcely a shred of scientific evidence in its favor. Even the First Lady of the United States, [Nancy Reagan, and her husband, Ronald, consulted an astrologer while he was the leader of the free world](#). From which I can only conclude that *astrologers have more influence than the stars do*.

Is it possible that I am who I am because of the position of the planets, stars, moons, comets, asteroids, quasars, black holes, etc., at the moment of my birth? Yes, it is possible. Do I have any reason to think that this possibility is more likely than the opposite possibility, namely, that these matters are insignificant and irrelevant to my 'destiny'? No. I can't find a single good reason for believing any of this. But I am a Taurus and we all know how stubborn I should be.

See related entries on [astrotherapy](#), [cosmobiology](#), and the [full moon](#).

further reading

[reader comments](#)

- [Astrology and Science](#) by Ivan Kelly
- ["Astrology" in the Catholic Encyclopedia](#)
- [Eric Kreig's Astrology Page](#)
- [Mass Media Bunk](#)
- [The Astrotest - A tough match for astrologers](#) by Rob Nanninga
- [Analysis of Astrology FAQ Page collected and edited by M.M. De Robertis](#)
- [The Real Romance in the Stars](#) by Richard Dawkins
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Occam's razor

"*Pluralitas non est ponenda sine neccesitate*" or "plurality should not be posited without necessity." The words are those of the medieval English philosopher and Franciscan monk William of Ockham (ca. 1285-1349). Like many Franciscans, William was a minimalist in this life, idealizing a life of poverty, and like St. Francis himself, battling with the Pope over the issue. William was excommunicated by Pope John XXII. He responded by writing a treatise demonstrating that Pope John was a heretic.

What is known as Occam's razor was a common principle in medieval philosophy and was not originated by William, but because of his frequent usage of the principle, his name has become indelibly attached to it. It is unlikely that William would appreciate what some of us have done in his name. For example, atheists often apply Occam's razor in arguing against the existence of God on the grounds that God is an unnecessary hypothesis. We can explain everything without assuming the extra metaphysical baggage of a Divine Being.

William's use of the *principle of unnecessary plurality* occurs in debates over the medieval equivalent of [psi](#). For example, in Book II of his *Commentary on the Sentences* of Peter Abelard, he is deep in thought about the question of "Whether a Higher Angel Knows Through Fewer Species than a Lower." Using the principle that "plurality should not be posited without necessity" he argues that the answer to the question is in the affirmative. He also cites Aristotle's notion that "the more perfect a nature is the fewer means it requires for its operation." This principle has been used by atheists to reject the God-the-Creator hypothesis in favor of natural evolution: if a Perfect God had created the Universe, both the Universe and its components would be much simpler. William would not have approved.

He did argue, however, that natural theology is impossible. Natural theology uses reason alone to understand God, as contrasted with revealed theology which is founded upon scriptural revelations. According to Occam, the idea of God is not established by evident experience or evident reasoning. All we know about God we know from revelation. The foundation of all theology, therefore, is faith. It should be noted that while others might apply the razor to eliminate the entire spiritual world, Ockham did not apply the principle of parsimony to the articles of faith. Had he done so, he might have become a Socinian like John Toland (*Christianity not Mysterious*, 1696) and pared down the Trinity to a Unity and the dual nature of Christ to a single nature.

William was somewhat of a minimalist in philosophy, advocating nominalism against the more popular view of realism. That is, he argued that [universals](#)

have no existence outside of the mind; universals are just names we use to refer to groups of individuals and the properties of individuals. Realists claim that not only are there individual objects and our concepts of those objects, there are also *universals*. Ockham thought that this was one too many pluralities. We don't need universals to explain anything. To nominalists and realists there exist Socrates the individual and our concept of Socrates. To the realist there also exist such realities as the *humanity* of Socrates, the *animality* of Socrates, etc. That is, every quality which may be attributed to Socrates has a corresponding "reality", a "universal" or *eidōs*, as Plato called them. William might be said to have been skeptical of this realm of plurality called the realm of universals. It is not needed for logic, epistemology or metaphysics, so why assume this unnecessary plurality? Plato and the realists could be right. Perhaps there is a realm of *eidōs*, of universal realities which are eternal, immutable models for individual objects. But we don't need to posit such a realm in order to explain individuals, our concepts or our knowledge. Plato's *Eidōs* (Forms) are excess and unnecessary metaphysical and epistemological baggage.

It might well be argued that [Bishop George Berkeley](#) applied Occam's razor to eliminate material substance as an unnecessary plurality. According to Berkeley, we need only minds and their ideas to explain everything. Berkeley was a bit selective in his use of the razor, however. He needed to posit God as the Mind who could hear the tree fall in the forest when nobody is present. Subjective Idealists might use the razor to get rid of God. All can be explained with just minds and their ideas. Of course this leads to [solipsism](#), the view that I and my ideas alone exist, or at least they are all I know exist. Materialists, on the other hand, might be said to use the razor to eliminate minds altogether. We don't need to posit a plurality of minds as well as a plurality of brains.

Occam's razor is also called the *principle of parsimony*. These days it is usually interpreted to mean something like "the simpler the explanation, the better" or "don't multiply hypotheses unnecessarily." In any case, Occam's razor is a principle which is frequently used outside of [ontology](#), e.g., by philosophers of science in an effort to establish criteria for choosing from among theories with equal explanatory power. When giving explanatory reasons for something, don't posit more than is necessary. [Von Däniken](#) could be right: maybe extraterrestrials did teach ancient people art and engineering, but we don't need to posit alien visitations in order to explain the feats of ancient people. Why posit pluralities unnecessarily? Or, as most would put it today, don't make any more assumptions than you have to. We can posit the ether to explain action at a distance, but we don't need ether to explain it, so why assume an ethereal ether?

Oliver W. Holmes and Jerome Frank might be said to have applied Occam's razor in arguing that there is no such thing as "the Law." There are only judicial decisions; individual judgments and the sum of them make up the

law. To confuse matters, these eminent jurists called their view *legal realism*, instead of *legal nominalism*. So much for simplifying matters.

Because Occam's razor is sometimes called *the principle of simplicity* some simpleminded [creationists](#) have argued that Occam's razor can be used to support creationism over evolution. After all, having God create everything is much simpler than evolution, which is a very complex mechanism. But Occam's razor does not say that the more simpleminded a hypothesis, the better. If it did, Occam's would be dull razor for a dim populace indeed.

Some have even found a use for Occam's razor to justify [budget cuts](#), arguing that "what can be done with less is done in vain with more." This approach seems to apply Occam's razor to the principle itself, eliminating the word "assumptions." It also confuses matters by confusing "less" with "fewer." Occam was concerned with fewer assumptions, not less money.

The original principle seems to have been invoked within the context of a belief in the notion that perfection is simplicity itself. This seems to be a metaphysical bias which we share with the medievals and the ancient Greeks. For, like them, most of our disputes are not about this principle but about what counts as necessary. To the materialist, dualists multiply pluralities unnecessarily. To the dualist, positing a mind as well as a body, is necessary. To atheists, positing God and a supernatural realm is to posit pluralities unnecessarily. To the theist, positing God is necessary. And so on. To von Daniken, perhaps, the facts make it necessary to posit extraterrestrials. To others, these aliens are unnecessary pluralities. In the end, maybe Occam's razor says little more than that for atheists God is unnecessary but for theists that is not true. If so, the principle is not very useful. On the other hand, if Occam's razor means that when confronted with two explanations, an implausible one and a probable one, a rational person should select the probable one, then the principle seems unnecessary because so obvious. But if the principle is truly a minimalist principle, then it seems to imply the more reductionism the better. If so, then the principle of parsimony might better have been called Occam's Chainsaw, for its main use seems to be for clear-cutting [ontology](#).

See related entries on [ad hoc hypotheses](#), [control study](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), [James Van Praagh](#), and [wishful thinking](#).

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cold reading

Cold reading refers to a set of techniques used by professional manipulators to get a subject to behave in a certain way or to think that the cold reader has some sort of special ability that allows him to "mysteriously" know things about the subject. Cold reading goes beyond the usual tools of manipulation: suggestion and flattery. In cold reading, salespersons, hypnotists, advertising pros, faith healers, con men and some therapists bank upon their subject's inclination to find more meaning in a situation than there actually is. The desire to make sense out of our experience has led us to many wonderful discoveries, but it has also led some of us to many follies. The manipulator knows that his mark will be inclined to try to make sense out of whatever he is told, no matter how farfetched or improbable. He knows, too, that people are generally self-centered, that we tend to have unrealistic views of ourselves and that we will generally accept claims about us that reflect not how we are or even how we really think we are but how we wish we were or think we should be. He also knows that for every several claims he makes about you which you reject as being inaccurate, he will make one that meets with your approval; and he knows that you will remember the hits he makes and forget the misses.

Thus, a good manipulator can provide a *reading* of a total stranger, which will make the stranger feel that the manipulator possesses some special power. For example, [Bertram Forer](#) has never met you, the reader, yet he offers the following cold reading of you:

Some of your aspirations tend to be pretty unrealistic. At times you are extroverted, affable, sociable, while at other times you are introverted, wary and reserved. You have found it unwise to be too frank in revealing yourself to others. You pride yourself on being an independent thinker and do not accept others' opinions without satisfactory proof. You prefer a certain amount of change and variety, and become dissatisfied when hemmed in by restrictions and limitations. At times you have serious doubts as to whether you have made the right decision or done the right thing. Disciplined and controlled on the outside, you tend to be worrisome and insecure on the inside.

Your sexual adjustment has presented some problems for you. While you have some personality weaknesses, you are generally able to compensate for them. You have a great deal of unused capacity which you have not turned to your advantage. You have a tendency to be critical of yourself.

You have a strong need for other people to like you and for them to admire you.

Here's another reading:

People close to you have been taking advantage of you. Your basic honesty has been getting in your way. Many opportunities that you have had offered to you in the past have had to be surrendered because you refuse to take advantage of others. You like to read books and articles to improve your mind. In fact, if you're not already in some sort of personal service business, you should be. You have an infinite capacity for understanding people's problems and you can sympathize with them. But you are firm when confronted with obstinacy or outright stupidity. Law enforcement would be another field you understand. Your sense of justice is quite strong.

The last one was from astrologer Sidney Omarr. He's never even met you and yet he knows so much about you (*Flim-Flam!*, 61). The first one was taken by Forer from a newsstand astrology book.

The selectivity of the human mind is always at work. We pick and choose what data we will remember and what we will give significance to. In part, we do so because of what we already believe or want to believe. In part, we do so in order to make sense out of what we are experiencing. We are not manipulated simply because we are gullible or suggestible, or just because the signs and symbols of the manipulator are vague or ambiguous. Even when the signs are clear and we are skeptical, we can still be manipulated. In fact, it may even be the case that particularly bright persons are more likely to be manipulated when the language is clear and they are thinking logically. To make the connections that the manipulator wants you to make, you must be thinking logically.

Not all cold readings are done by malicious manipulators. Some readings are done by astrologers, graphologists, tarot readers, and psychics who genuinely believe they have paranormal powers. They are as impressed by their correct predictions or "insights" as are their clients. We should remember, however, that just as scientists can be wrong in their predictions, so pseudoscientists and quacks can sometimes be right in theirs.

There seem to be three common factors in these kinds of readings. One factor involves *fishing for details*. The psychic says something at once vague and suggestive, e.g., "I'm getting a strong feeling about January here." If the subject responds, positively or negatively, the psychic's next move is to play off the response. E.g., if the subject says, "I was born in January" or my mother died in January" then the psychic says something like "Yes, I can see

that," anything to reinforce the idea that the psychic was more precise than he or she really was. If the subject responds negatively, e.g., "I can't think of anything particularly special about January," the psychic might reply, "Yes, I see that you've suppressed a memory about it. You don't want to be reminded of it. Something painful in January. Yes, I feel it. It's in the lower back [fishing]...oh, now it's in the heart [fishing]...umm, there seems to be a sharp pain in the head [fishing]...or the neck [fishing]." If the subject gives no response, the psychic can leave the area, having firmly implanted in everybody's mind that the psychic really did 'see' something but the subject's suppression of the event hinders both the psychic and the subject from realizing the specifics of it. If the subject gives a positive response to any of the fishing expeditions, the psychic follows up with more of "I see that very clearly, now. Yes, the feeling in the heart is getting stronger."

Fishing is a real art and a good mentalist carries a variety of bait in his memory. For example, professional mentalist and author of one of the best books on cold reading, Ian Rowland (2002), says that he has committed to memory such things as the most common male and female names and a list of items likely to be lying about the house such as an old calendar, a photo album, newspaper clippings, and so on. Rowland also works on certain themes that are likely to resonate with most people who consult psychics: love, money, career, health, and travel. Since cold reading can occur in many contexts, there are several tactics Rowland covers. But whether one is working with [astrology](#), [graphology](#), [palmistry](#), [psychometry](#), or [Tarot cards](#), or whether one is [channeling](#) messages from the dead à la [James Van Praagh](#), there are specific techniques one can use to impress clients with one's ability to know things that seem to require paranormal powers.

Another characteristic of these readings is that *many claims are put in either vague statement form* ("I'm getting a warm feeling in the crotch area") *or in the form of a question* ("I sense that you have strong feelings about someone in this room. Am I right?") Most of the specific claims are provided by the subject himself.

Finally, *those occasions where the psychic has guessed wrongly about the subject will be forgotten* by the subject and the audience. What will be remembered are the seeming hits, giving the overall impression of "wow, how else could she have known all this stuff unless she is psychic." This same phenomenon of suppression of contrary evidence and [selective thinking](#) is so predominant in every form of psychic demonstration that it seems to be related to the old psychological principle: a man sees what he wants to see and disregards the rest.

See related entries on [ad hoc hypotheses](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [medium](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [psychic](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), [James Van Praagh](#) and [wishful thinking](#).

further reading

- [Guide to Cold Reading](#) by Ray Hyman
- [Cold Reading](#) by Robert Novella
- [Cold Reading: Confessions of a "Psychic"](#)

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[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

[Rowland, Ian. *The Full Facts Book of Cold Reading*, 3rd. ed \(2000\).](#)

Note: If you really want to learn about cold reading, buy Rowland's book. Do not buy Basil Hoffman's *Cold Reading and How to Be Good at It*. As one disappointed buyer at Amazon.com notes: "this book is an instructional for actors who are going to auditions."

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 [codependency](#)

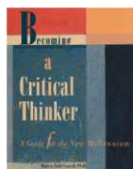
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[Becoming
a Critical Thinker](#)

by Robert T. Carroll

communal reinforcement

Communal reinforcement is the process by which a claim becomes a strong belief through repeated assertion by members of a community. The process is independent of whether the claim has been properly researched or is supported by empirical data significant enough to warrant belief by reasonable people. Often, the mass media contribute to the process by uncritically supporting the claims. More often, however, the mass media provide tacit support for untested and unsupported claims by saying nothing skeptical about even the most outlandish of claims.

Examples abound: [alien abductions](#), [astral projections](#), [racist ideas](#), [past-life regression](#), the notion that children have memories that are completely accurate, the idea that children rarely says things that aren't true, that [Edgar Cayce](#) had psychic healing powers, that an Indian Yogi was buried but his body did not decay, that people levitate, that it is possible to have sex with the spirits of the dead, that you can rid yourself of cancer by visualization or humor, that some animals have [ESP](#), that [surgery can be performed and tumors removed from internal organs using psychic powers](#), that the FBI has a wiretap on every phone in America, that the military has implanted microchips in our butts and can order us around at will, that Russian troops are amassing on the Mexican border waiting to invade the U.S. and take it over for the United Nations, that Jews control all the power and money of the world, that once assault weapons are banned it will only be a matter of time before all our weapons are confiscated and a totalitarian regime will take away our right to pray, to play and to slay, etc. etc. etc.

Communal reinforcement explains how entire nations can pass on ineffable gibberish from generation to generation. It also explains how testimonials reinforced by other testimonials within the community of therapists, sociologists, psychologists, theologians, politicians, talk show aficionados, etc., can supplant and be more powerful than scientific studies or accurate gathering of data by disinterested parties.


See **related entries** on [ad hoc hypotheses](#), [cold reading](#), [confirmation bias](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [subjective validation](#), [testimonials](#), and [wishful thinking](#).

For examples of beliefs deeply affected by communal reinforcement, see the following:

- [alternative health practices](#)
- [the Bermuda Triangle](#)
- [cults](#)
- [graphology](#)
- [Chi Kung \(Qi Gong\)](#)
- [exorcism](#)
- God
- [hypnosis](#)
- [mesmerism](#)
- [multiple personality disorder](#)
- [New Age Psychotherapies](#)
- [psychic detectives](#)
- [repressed memory therapy](#)
- [Santa Claus](#)
- [James Van Praagh,](#)

See also [Mass Media Bunk](#) for examples of the mass media showing no skepticism about paranormal, pseudoscientific or occult topics.

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 [collective
hallucinations](#)

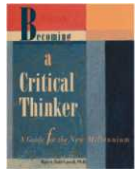
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post hoc fallacy

The *post hoc ergo propter hoc* (after this therefore because of this) fallacy is based upon the mistaken notion that simply because one thing happens after another, the first event was a cause of the second event. Post hoc reasoning is the basis for many superstitions and erroneous beliefs.

Many events follow sequential patterns without being causally related. For example, you have a cold, so you drink fluids and two weeks later your cold goes away. You have a headache so you stand on your head and six hours later your headache goes away. You put acne medication on a pimple and three weeks later the pimple goes away. You perform some task exceptionally well after forgetting to bathe, so the next time you have to perform the same task you don't bathe. A solar eclipse occurs so you beat your drums to make the gods spit back the sun. The sun returns, proving to you the efficacy of your action.

You use your dowsing stick and then you find water. You imagine heads coming up on a coin toss and heads comes up. You rub your lucky charm and what you wish for comes true. You lose your lucky charm and you strike out six times. You have a "vision" that a body is going to be found near water or in a field and later a body is found near water or in a field. You have a dream that an airplane crashes and an airplane crashes the next day or crashed the night before.

However, sequences don't establish a probability of causality any more than correlations do. Coincidences happen. Occurring after an event is not sufficient to establish that the prior event caused the later one. To establish the probability of a causal connection between two events, controls must be established to rule out other factors such as chance or some unknown causal factor. Anecdotes aren't sufficient because they rely on intuition and subjective interpretation. A [controlled study](#) is necessary to reduce the chance of error from self-deception.

See related entries on [ad hoc hypotheses](#), [confirmation bias](#), [cold reading](#), [control study](#), [communal reinforcement](#), [Occam's razor](#), [paranormal](#), [the placebo effect](#), [regressive fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), [James Van Praagh](#), and [wishful thinking](#).

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[positive- outcome bias](#)



[pragmatic fallacy](#)

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[Coincidence? We think so](#) By JIM
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Sun

selective thinking

Selective thinking is the process whereby one selects out favorable evidence for remembrance and focus, while ignoring unfavorable evidence for a belief. This kind of thinking is the basis for most beliefs in the [psychic](#) powers of so-called [mind readers](#) and [mediums](#). It is also the basis for many, if not most, [occult](#) and [pseudoscientific](#) beliefs.

It should be noted that selective thinking works independently of [wishful thinking](#) and should not be confused with [biased thinking](#), whereby one seriously *considers* data contrary to one's belief, but one is much more critical of such data than one is of supportive data.

See **related entries** on [ad hoc hypothesis](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [self-deception](#), [subjective validation](#), [testimonials](#) and [wishful thinking](#).

further reading

- [Coincidences: Remarkable or Random?](#) by Bruce Martin

[reader comments](#)

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[Deception & Self-deception:
Investigating
Psychics by Richard
Wiseman](#)

self-deception

Ninety-four percent of university professors think they are better at their jobs than their colleagues.

Twenty-five percent of college students believe they are in the top 1% in terms of their ability to get along with others.

Seventy percent of college students think they are above average in leadership ability. Only two percent think they are below average.

--Thomas Gilovich *How We Know What Isn't So*

Eighty-five percent of medical students think it is improper for politicians to accept gifts from lobbyists. Only 46 percent think it's improper for physicians to accept gifts from drug companies.

--Dr. Ashley Wazana [JAMA](#) Vol. 283 No. 3, January 19, 2000

People tend to hold overly favorable views of their abilities in many social and intellectual domains....This overestimation occurs, in part, because people who are unskilled in these domains suffer a dual burden: Not only do these people reach erroneous conclusions and make unfortunate choices, but their incompetence robs them of the metacognitive ability to realize it.

--"Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments," by Justin Kruger and David Dunning Department of Psychology Cornell University, [Journal of Personality and Social Psychology](#) December 1999 Vol. 77, No. 6, 1121-1134.

Self-deception is the process or fact of misleading ourselves to accept as true or valid what is false or invalid. Self-deception, in short, is a way we justify false beliefs to ourselves.

When philosophers and psychologists discuss self-deception, they usually focus on unconscious motivations and intentions. They also usually consider self-deception as a bad thing, something to guard against. To explain how self-deception works, they focus on self-interest, prejudice, desire, insecurity, and other psychological factors unconsciously affecting in a negative way the will to believe. A common example would be that of a parent who believes his child is telling the truth even though the objective evidence strongly supports the claim that the child is lying. The parent, it is said, deceives him or herself into believing the child because the parent *desires* that the child tell the truth. A belief so motivated is usually considered more flawed than one due to lack

of ability to evaluate evidence properly. The former is considered to be a kind of moral flaw, a kind of dishonesty, and irrational. The latter is considered to be a matter of fate: some people are just not gifted enough to make proper inferences from the data of perception and experience.

However, it is possible that the parent in the above example believes the child because he or she has intimate and extensive experience with the child but not with the child's accusers. The parent may be unaffected by unconscious desires and be reasoning on the basis of what he or she knows about the child but does not know about the others involved. The parent may have very good reasons for trusting the child and not trusting the accusers. In short, an apparent act of self-deception may be explicable in purely cognitive terms without any reference to unconscious motivations or irrationality. The self-deception may be neither a moral nor an intellectual flaw. It may be the inevitable existential outcome of a basically honest and intelligent person who has extremely good knowledge of his or her child, knows that things are not always as they appear to be, has little or no knowledge of the child's accusers, and thus has not sufficient reason for doubting the child. It may be the case that an independent party could examine the situation and agree that the evidence is overwhelming that the child is lying, but if he or she were wrong we would say that he or she was *mistaken*, not self-deceived. We consider the parent to be self-deceived because we assume that he or she is not simply mistaken, but is being irrational. How can we be sure?

A more interesting case would be one where (1) a parent has good reason to believe that his or her child is likely to tell the truth in any given situation, (2) the objective evidence points to innocence, (3) the parent has no reason to especially trust the child's accusers, but (4) the parent believes the child's accusers anyway. Such a case is so defined as to be practically impossible to explain without assuming some sort of unconscious and irrational motivation (or brain disorder) on the part of the parent. However, if cognitive incompetence is allowed as an explanation for apparently irrational beliefs, then appeals to unconscious psychological mechanisms are not necessary even in this case.

Fortunately, it is not necessary to know whether self-deception is due to unconscious motivations or not, in order to know that there are certain situations where self-deception is so common that we must systematically take steps to avoid it. Such is the case with belief in paranormal or occult phenomena such as ESP, prophetic dreams, dowsing, therapeutic touch, facilitated communication and a host of other topics taken up in the [Skeptic's Dictionary](#).

In *How We Know What Isn't So*, Thomas Gilovich describes the details of many studies which make it clear that we must be on guard against the tendencies to

1. **misperceive random data and see patterns where there are none**
2. **misinterpret incomplete or unrepresentative data and give extra attention to confirmatory data while drawing conclusions without attending to or seeking out disconfirmatory data**
3. **make biased evaluations of ambiguous or inconsistent data, tending to be uncritical of supportive data and very critical of unsupportive data.**

It is because of these tendencies that scientists require clearly defined, [controlled, double-blind, randomized, repeatable, publicly presented studies](#).

Otherwise, we run a great risk of deceiving ourselves and believing things that are not true. It is also because of these tendencies that in trying to establish beliefs non-scientists ought to try to imitate science whenever possible. In fact, scientists must keep reminding themselves of these tendencies and guard against [pathological science](#).

Many people believe, however, that as long as they guard themselves against [wishful thinking](#) they are unlikely to deceive themselves. Actually, if one believes that all one must be on guard against is wishful thinking, then one may be *more* rather than less liable to self-deception. For example, many intelligent people have invested in numerous fraudulent products that promised to save money, the environment, the world, etc., not because they were guilty of wishful thinking but because they *weren't*. Since they were not guilty of wishful thinking, they felt assured that they were correct in defending their product. They could easily see the flaws in critical comments. They were adept at finding every weakness in opponents. They were sometimes brilliant in defense of their useless devices. Their errors were cognitive, not emotional. They misinterpreted data. They gave full attention to confirmatory data, but were unaware of or oblivious to disconfirmatory data. They sometimes were not aware that the way in which they were selecting data made it impossible for contrary data to have a chance to occur. They were adept at interpreting data favorably when either the goal or the data itself was ambiguous or vague. They were sometimes brilliant in arguing away inconsistent data with ad hoc hypotheses. Yet, had they taken the time to design a clear test with proper controls, they could have saved themselves a great deal of money and embarrassment. The defenders of the [DKL LifeGuard](#) and the many defenders of perpetual motion machines and [free energy](#) devices are not necessarily driven by the *desire to believe* in their magical devices. They may simply be the victims of quite ordinary cognitive obstacles to critical thinking. Likewise for all those nurses who believe in [therapeutic touch](#) and those defenders of [facilitated communication](#), [ESP](#), [astrology](#), [biorhythms](#), [crystal power](#), [dowsing](#), and a host of other notions that seem to have been clearly refuted by the scientific evidence. In short, self-deception is not necessarily a weakness of will, but may be a matter of cognitive ignorance, laziness, or incompetence.

On the other hand, self-deception may not always be a flaw and may even be

beneficial at times. If we were too brutally honest and objective about our own abilities and about life in general, we might become debilitated by depression.

See related entries on [ad hoc hypothesis](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [pathological science](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [subjective validation](#), [testimonials](#) and [wishful thinking](#).

further reading

- [Beyond Science](#)
- [Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments](#) by Justin Kruger and David Dunning, Department of Psychology, Cornell University
- [Recommendations of the Commission on Professional Self Regulation in Science](#)
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Search the Skeptic's Dictionary



the Forer effect (a.k.a. the *P.T. Barnum effect* and *subjective validation*)

"We have something for everyone." --P.T. Barnum

The Forer or Barnum effect is also known as the *subjective validation effect* or the *personal validation effect*. (The expression, "the Barnum effect," seems to have originated with psychologist Paul Meehl, in deference to circus man P.T. Barnum's reputation as a master psychological manipulator.)

Psychologist B.R. Forer found that people tend to accept vague and general personality descriptions as uniquely applicable to themselves without realizing that the same description could be applied to just about anyone. Consider the following as if it were given to you as an evaluation of your personality.

You have a need for other people to like and admire you, and yet you tend to be critical of yourself. While you have some personality weaknesses you are generally able to compensate for them. You have considerable unused capacity that you have not turned to your advantage. Disciplined and self-controlled on the outside, you tend to be worrisome and insecure on the inside. At times you have serious doubts as to whether you have made the right decision or done the right thing. You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations. You also pride yourself as an independent thinker; and do not accept others' statements without satisfactory proof. But you have found it unwise to be too frank in revealing yourself to others. At times you are extroverted, affable, and sociable, while at other times you are introverted, wary, and reserved. Some of your aspirations tend to be rather unrealistic.

Forer gave a personality test to his students, ignored their answers, and gave each student the above evaluation. He asked them to evaluate the evaluation from 0 to 5, with "5" meaning the recipient felt the evaluation was an "excellent" assessment and "4" meaning the assessment was "good." The class average evaluation was 4.26. That was in 1948. The test has been repeated hundreds of times with psychology students and the average is still around 4.2.

In short, Forer convinced people he could successfully read their character. His accuracy amazed his subjects, though his personality analysis was taken from a newsstand astrology column and was presented to people without regard to their sun sign. The Forer effect seems to explain, in part at least, why so many people think that [pseudosciences](#) "work". [Astrology](#), [astrotherapy](#), [biorhythms](#), [cartomancy](#), [chiromancy](#), [the enneagram](#), [fortune telling](#), [graphology](#), etc., seem to work because they seem to provide accurate personality analyses. Scientific studies of these pseudosciences demonstrate that they are not valid personality assessment tools, yet each has many satisfied customers who are convinced they are accurate.

The most common explanations given to account for the Forer effect are in terms of hope, wishful thinking, vanity and the tendency to try to make sense out of experience, though Forer's own explanation was in terms of human gullibility. People tend to accept claims about themselves in proportion to their *desire* that the claims be true rather than in proportion to the empirical accuracy of the claims as measured by some non-subjective standard. We tend to accept questionable, even false statements about ourselves, if we deem them positive or flattering enough. We will often give very liberal interpretations to vague or inconsistent claims about ourselves in order to make sense out of the claims. Subjects who seek counseling from psychics, mediums, fortune tellers, mind readers, graphologists, etc., will often *ignore* false or questionable claims and, in many cases, by their own words or actions, will provide most of the information they erroneously attribute to a pseudoscientific counselor. Many such subjects often feel their counselors have provided them with profound and personal information. Such subjective validation, however, is of little scientific value.

Psychologist Barry Beyerstein believes that "hope and uncertainty evoke powerful psychological processes that keep all occult and pseudoscientific character readers in business." We are constantly trying "to make sense out of the barrage of disconnected information we face daily" and "we become so good at filling in to make a reasonable scenario out of disjointed input that we sometimes make sense out of nonsense." We will often fill in the blanks and provide a coherent picture of what we hear and see, even though a careful examination of the evidence would reveal that the data is vague, confusing, obscure, inconsistent and even unintelligible. Psychic mediums, for example, will often ask so many disconnected and ambiguous questions in rapid succession that they give the impression of having access to personal knowledge about their subjects. In fact, the psychic need not have any insights into the subject's personal life; for, the subject will willingly and unknowingly provide all the associations and validations needed. Psychics are aided in this process by using [cold reading](#) techniques.

David Marks and Richard Kamman argue that

once a belief or expectation is found, especially

one that resolves uncomfortable uncertainty, it biases the observer to notice new information that confirms the belief, and to discount evidence to the contrary. This self-perpetuating mechanism consolidates the original error and builds up an overconfidence in which the arguments of opponents are seen as too fragmentary to undo the adopted belief.

Having a pseudoscientific counselor go over a character assessment with a client is wrought with snares that can easily lead the most well intentioned of persons into error and delusion.

Barry Beyerstein suggests the following test to determine whether the apparent validity of the pseudosciences mentioned above might not be due to the Forer effect, [confirmation bias](#), or other psychological factors. (Note: the proposed test also uses subjective or personal validation and is not intended to test the accuracy of any personality assessment tool, but rather is intended to counteract the tendency to self-deception about such matters.)

...a proper test would first have readings done for a large number of clients and then remove the names from the profiles (coding them so they could later be matched to their rightful owners). After all clients had read all of the anonymous personality sketches, each would be asked to pick the one that described him or her best. If the reader has actually included enough uniquely pertinent material, members of the group, on average, should be able to exceed chance in choosing their own from the pile.

Beyerstein notes that "no occult or pseudoscientific character reading method...has successfully passed such a test."

The Forer effect, however, only partially explains why so many people accept as accurate occult and pseudoscientific character assessment procedures. [Cold reading](#), [communal reinforcement](#), and [selective thinking](#) also underlie these delusions. Also, it should be admitted that while many of the assessment claims in a pseudoscientific reading are vague and general, some are specific. Some of those that are specific actually apply to large numbers of people and some, by chance, will be accurate descriptions of a select few. A certain number of specific assessment claims should be expected by chance.

There have been numerous studies done on the Forer effect. Dickson and Kelly have examined many of these studies and concluded that overall there is

significant support for the general claim that Forer profiles are generally perceived to be accurate by subjects in the studies. Furthermore, there is an increased acceptance of the profile if it is labeled "for you". Favorable assessments are "more readily accepted as accurate descriptions of subjects' personalities than unfavorable" ones. But unfavorable claims are "more readily accepted when delivered by people with high perceived status than low perceived status." It has also been found that subjects can generally distinguish between statements that are accurate (but would be so for large numbers of people) and those that are unique (accurate for them but not applicable to most people). There is also some evidence that personality variables such as *neuroticism*, *need for approval*, and *authoritarianism* are positively related to belief in Forer-like profiles. Unfortunately, most Forer studies have been done only on college students.

See related entries on [ad hoc hypotheses](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [the Myers-Briggs Type Indicator](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [testimonials](#), [James Van Praagh](#), and [wishful thinking](#).

further reading

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 [flying saucers](#)

[Charles Fort](#) 

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testimonial evidence

Testimonials and vivid anecdotes are one of the most popular and convincing forms of "evidence" presented for beliefs in the transcendent, paranormal and pseudoscientific. Nevertheless, testimonials and anecdotes in such matters are of near zero value in establishing the probability of the claims they are put forth to support. A sincere and vivid account of one's encounter with an angel, an alien, a ghost, a Bigfoot; or purple auras around dying patients, a miraculous dowser, a levitating guru, or a psychic surgeon, is of little empirical value in establishing the reasonableness of believing in such matters. Such accounts are inherently unreliable and biased. They are of no more value than the televised accounts of satisfied customers of the latest weight loss program.

The testimonial of "personal experience" in paranormal or supernatural matters has no scientific value. If others cannot experience the same thing under the same conditions, then there will be no way to verify the experience. If there is no way to test the claims made, then there will be no way to tell if the experience was a delusion or was interpreted correctly. If others can experience the same thing, then it is possible to make a test of the testimonial and determine whether the claim based on it is worthy of belief.

The reason the testimonials regarding paranormal experiences are scientifically worthless is because in such matters [selective thinking](#) and [self-deception](#) must be controlled for. Most [psychics](#) do not even realize that they need to do a [controlled test](#) of their powers to rule out the possibility that they are deceiving themselves. They are satisfied with their experience as a psychic. Controlled tests of psychics will prove once and for all that they are not being selective in their evidence gathering, i.e., counting only the apparent successes and conveniently ignoring or underplaying the misses. Controlled tests can also determine if other factors, such as cheating, might be involved. Thus, in and of themselves, the testimonials of psychics are scientifically worthless.

If such testimonials are scientifically worthless, why are they so popular and why are they so convincing? There are several reasons. Testimonials are often very vivid and detailed, making them appear very believable. They are often made by enthusiastic people, who seem trustworthy and honest, with no apparent reason for wanting to deceive us. They are often made by people with some semblance of authority, such as a Ph.D. in psychology or physics. They are also often given soon after the treatment, before the real effect, if any, occurs. They thus measure a change in *mood* rather than a change in physical condition. Finally, testimonials are believable because people *want* to believe them. Nevertheless, testimonials which are of untestable claims are

worthless on their face. And testimonials of testable claims are often worthless until tested.

For example, someone posted a story on the WWW at <http://www2.corenet.net:80/numer/healing.html> (the link is now dead, as is, I suspect, the patient in the story) called "Cancer Treatment by [TT](#)." It is the story of the author's uncle who had cancer and was told by his doctor that the two months of radiation therapy he had been getting had done no good. Nine months earlier the man was told he had two months to live. According to the nephew, he is now "alive and well" because a spiritual healer treated his cancer with TT. The author described how TT works.

The healer directs his energy to the patient's body without touching it wave by wave. In our case he would place his hands over my uncle's chest and then move them in a slow motion around his lungs for about 30 minutes.

It is obvious the doctor was wrong in his prediction of how long his patient had to live. Predicting how long a cancer patient will live is a fallible business. Maybe this error will teach the doctor not to be so cocksure in his predictions in the future. Or maybe the uncle and his nephew misunderstood the doctor, who may have stated his prediction in a qualified way, such as, "my best guess is..." or "based on similar cases I have had, I would estimate...." It is also possible that the doctor was wrong about the effectiveness of the radiation therapy and that it had worked better than he or she thought. It is possible that the cancer went into spontaneous remission. It is possible that the uncle was misdiagnosed and mistreated and he is alive only because his doctors had given him up for dead. It is possible the author is lying. It is also possible that TT worked in this case. But what seems more probable? All we know for sure--assuming the basic facts are true--is that the man lived longer than a doctor predicted and that both radiation therapy and TT were administered. The evidence is not strong enough to justify believing that either the radiation therapy or the TT were significant causal factors in the patient's living seven months beyond a prediction. Controlled studies, not anecdotes, are needed to determine whether TT truly is a significant causal factor in cancer treatment.

Finally, it should be noted that testimonials are often used in many areas of life, including medical science by physicians in treating patients, and that giving due consideration to such testimonials is considered wise not foolish. A physician will use the testimonies of his or her patients to draw conclusions about certain medications or procedures. For example, a physician will take anecdotal evidence from a patient about a reaction to a new medication and use that information in deciding to adjust the prescribed dosage or to change the medication. This is quite reasonable. But the physician cannot be selective in listening to testimony, listening only to those claims which fit his or her own prejudices. To do so is to risk harming one's patients. Nor should the

average person be selective when listening to testimonials of some paranormal or occult experience.

See **related entries** on [ad hoc hypotheses](#), [Occam's razor](#), [cold reading](#), [communal reinforcement](#), [control study](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), and [wishful thinking](#).

further reading

[reader comments](#)

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[teleportation](#)

[Texas-sharpshooter fallacy](#)

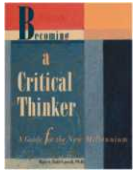


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wishful thinking

Wishful thinking is interpreting facts, reports, events, perceptions, etc., according to what one would like to be the case rather than according to the actual evidence. If it is done intentionally and without regard for the truth, it is called misinterpretation, falsification, dissembling, disingenuous, or perversion of the truth.

See **related entries** on [ad hoc hypothesis](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), and [testimonials](#).



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[ad hoc hypothesis](#)

reader comments:

ad hoc hypothesis

20 Sep 1996

As a skeptic I was delighted to find your dictionary on the net. Just as I was about to conclude that the net is full of useless crap. (I'm a neophyte and I persevere. Obviously there is a great deal of useful information and entertainment here.) I think I understand that you are often playing the devil's advocate. Some of the items you debunk do not necessarily deserve the offhand dismissal you tend to dish out. Chiropractic for example does seem to have some validity, but not the all pervasiveness that some exponents would argue.

Anyhow, re your article on ad hoc hypothesis: When you, for example, posit that in cases of hands on healing, chiropractic etc. that the subject may have improved without any intervention at all, are you not indulging yourself in a little ad hoc hypothesis? Perhaps this is called fighting fire with fire. I suppose this only points out how difficult it is to counter assumptions that start from a premise that cannot be tested empirically.

Doug Harper

reply: Well, let's say I thought I caught you stealing a watch from a shop. You say you didn't steal it. I ask you to empty your pockets. You agree and pull out a watch. I say, "Aha, I was right. You stole the watch." You reply that you did not steal the watch, but you admit that it was not in your pocket when we went into the store. I ask you to explain how the watch got in your pocket and you say that you used telekinesis: you used your thoughts to transport the watch out of a glass case into your pocket. I ask you to repeat the act with another watch and you say "ok." But try as you will, you can't make a watch magically appear in your pocket. You say that there is too much pressure on you to perform and there are too many bad vibes in the air for you to work your powers. You've offered an ad hoc hypothesis to explain away what looks like a good refutation of your hypothesis. I have not offered an ad hoc hypothesis about anything. I don't call this fighting fire with fire, but fighting the implausible with the probable. Accepting a simpler and more plausible explanation in terms consistent with universal human experience, rather than a farfetched explanation requiring belief in occult, supernatural or paranormal forces, is called applying [Occam's razor](#). It differs considerably from ad hoc hypothesizing.



[ad hoc hypothesis](#)

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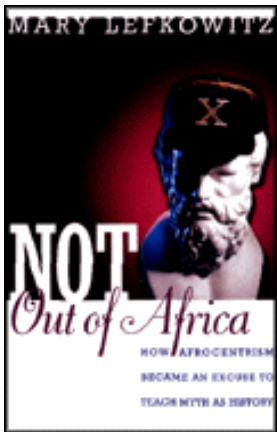
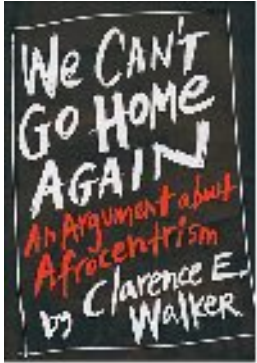
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Afrocentrism

Afrocentrism is a mythology that is racist, reactionary, and essentially therapeutic. It suggests that nothing important has happened in black history since the time of the pharaohs and thus trivializes the history of black Americans. Afrocentrism places an emphasis on Egypt that is, to put it bluntly, absurd. --Clarence E. Walker*

Afrocentrism is a [pseudohistorical](#) political movement that erroneously claims that African-Americans should trace their roots back to ancient Egypt because it was dominated by a race of black Africans. Some of Afrocentrism's other claims are: the ancient Greeks stole their main cultural achievements from black Egyptians; Jesus, Socrates and Cleopatra, among others, were black; and Jews created the slave trade of black Africans.

The main purpose of Afrocentrism is to encourage black nationalism and ethnic pride as a psychological weapon against the destructive and debilitating effects of universal racism.

Some of Afrocentrism's leading proponents are Professor Molefi Kete Asante of Temple University; Professor Leonard Jeffries of City University of New York; and Martin Bernal, author of *Black Athena*.

One of the more important Afrocentric texts is the pseudo-historical *Stolen Legacy* (1954) by George G. M. James. Mr. James claims, among other things, that Greek philosophy and the mystery religions of Greece and Rome were stolen from Egypt; that the ancient Greeks did not have the native ability to develop philosophy; and that the Egyptians from whom the Greeks stole their philosophy were black Africans. Many of James' ideas were taken from Marcus Garvey (1887-1940), who thought that white accomplishment is due to teaching children they are superior. If blacks are to succeed, he said, they would have to teach their children that they are superior.

James's principal sources were Masonic, especially *The Ancient Mysteries and Modern Masonry* (1909) by the Rev. Charles H. Vail. The Masons in turn derived their misconceptions about Egyptian mystery and initiation rites from the eighteenth century work of fiction *Sethos, a History or Biography, based on Unpublished Memoirs of Ancient Egypt* (1731) by the Abbe Jean Terrasson (1670-1750), a professor of Greek. Terrasson had no access to Egyptian sources and he would be long dead before Egyptian hieroglyphics could be deciphered. But Terrasson knew the Greek and Latin writers well. So he constructed an imaginary Egyptian religion based upon sources which described Greek and Latin rites as if they were Egyptian (Lefkowitz). Hence,

one of the main sources for Afrocentric Egyptology turns out to be Greece and Rome. The Greeks would have called this *irony*. I don't know what Afrocentrists call it.

James's pseudo-history is the basis for other Afrocentric pseudo-histories such as *Africa, Mother of Western Civilization* by Yosef A.A. ben-Jochannnan, one of James's students, and *Civilization or Barbarism* by Cheikh Anta Diop of Senegal.

Afrocentrism is being taught in many universities and colleges, and is the basis of an entire [curriculum for children in two Milwaukee schools](#).

further reading

[reader comments](#)

- [alt.culture on Afrocentrism](#)
- [Pride and prejudice](#) by Dinesh D'Souza
- [Building Bridges to Afrocentrism](#) by Egyptologist Ann Macy Roth
- [AFROCENTRISM The Argument We're Really Having © 1996 by Ibrahim Sundiata](#)

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[ad hoc hypotheses](#)

[agnosticism](#)



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pseudohistory

Pseudohistory is purported history which

- treats myths, legends, sagas and similar literature as literal truth
- is neither critical nor skeptical in its reading of ancient historians, taking their claims at face value and ignoring empirical or logical evidence contrary to the claims of the ancients
- is on a mission, not a quest, seeking to support some contemporary political or religious agenda rather than find out the truth, the whole truth and nothing but the truth about the past
- often denies that there is such a thing as historical truth, clinging to the extreme skeptical notion that only what is absolutely certain can be called 'true' and nothing is absolutely certain, so nothing is true
- often maintains that history is nothing but mythmaking and that different histories are not to be compared on such traditional academic standards as accuracy, empirical probability, logical consistency, relevancy, completeness, fairness, honesty, etc., but on moral or political grounds
- is selective in its use of ancient documents, citing favorably those that fit with its agenda, and ignoring or interpreting away those documents which don't fit
- considers the *possibility* of something being true as sufficient to believe it is true if it fits with one's agenda
- often maintains that there is a conspiracy to suppress its claims because of racism, atheism or ethnocentrism, or because of opposition to its political or religious agenda

Examples of pseudohistory include [Afrocentrism](#), [creationism](#), [holocaust revisionism](#) and the catastrophism of Immanuel [Velikovsky](#).

Pseudohistory should be distinguished from the ancient texts it is based on. The sagas, legends, myths and histories which have been passed on orally or in written documents by ancient peoples are sometimes called pseudohistory. Some of it is pseudohistory, some of it is flawed history and some of it isn't history at all.

Pseudohistory should also be distinguished from historical fiction and fantasy. Books such as Terence Flanagan's *The Year of the French*, *The Tenants of Time* and *The End of the Hunt* are not pseudohistories but works of fiction in a historical setting. Despite the fact that historical fiction is often historically accurate, it is not history. Anyone who cites a work of historical fiction as if it were a history text is a practicing pseudohistorian. I suppose one should also refer to writers such as the Abbe Jean Terrason (1670-175?) as

pseudohistorians. These are writers of historical fiction who intentionally falsify and invent ancient history, as Terrason did in his *Sethos, a History or Biography, based on Unpublished Memoirs of Ancient Egypt*. This technique of claiming to find an ancient document and publishing it in order to express one's own ideas is still used, e.g., [The Celestine Prophecy](#). A variation on this theme is to claim that one is [channeling](#) a book from some ancient being, e.g., [The Urantia Book](#) and [Bringers of the Dawn](#).

pseudohistory at the movies

Films seem to present a special challenge for some people; for, they argue endlessly about the duty of filmmakers to be historically accurate. Is Oliver Stone's *JFK* fiction, fantasy, myth, pseudohistory or what? The film invents fictional characters and events to enhance the story and Stone's personal views, some of which are improbable or known to be false. Unless a film claims to be a documentary, it is fiction or fantasy no matter how accurate or realistic it is. Film makers have no more duty to be historians than do novelists. Anyone who would cite films such as *JFK* or *Michael Collins* as if they were historical documents is a pseudohistorian. Rather than demand that filmmakers be responsible historians or citizens, we should demand that filmgoers be critical thinkers. Being "based on a true story" is not a sufficient condition for being non-fiction. Likewise, the *X-Files* and similar television programs, which may be realistic and or even claim to be based on a true story, are not non-fiction. To site such fantasy programs as evidence for claims about supernatural or paranormal events is to engage in the type of pseudoresearch practiced by pseudohistorians.

See related entries on [Afrocentrism](#), [The Celestine Prophecy](#), [creationism](#), [Pleiadians](#), [Zecharia Sitchin](#), [Erich von Däniken](#), [The Urantia Book](#), and [Immanuel Velikovsky](#).

further reading

- [In the Hall of Ma'at - Weighing the Evidence for Alternative History](#)
- [The New Atlantis and the Dangers of Pseudohistory](#) by Garrett G.Fagan and Chris Hale
- ["Giving the Devil His Due: Holocaust Revisionism as a Test Case for Free Speech and the Skeptical Ethic"](#) by Frank Miele
- [Skeptic](#), Volume 2, Number 4 (1994): *Pseudohistory* Has articles on holocaust revisionism, Afrocentrism, creationism and arkology.
- [The History of Pseudohistory by Rocky](#) One could not find a better specimen of the principles of relativism, historicism, subjectivism, and extreme skepticism at work.If you want to get inside the mind of a pseudohistorian, Rocky's is accessible to anyone who can read

English.

[Lefkowitz, Mary, *Not Out of Africa - How Afrocentrism Became an Excuse to Teach Myth as History* \(New York: Basic Books, 1996\). Reviewed in *The Skeptic's Refuge*](#)

[Shermer, Michael. *Denying History: Who Says the Holocaust Never Happened & Why Do They Say It?* \(Millennium Press, 1999\).](#)

[Shermer, Michael. *Why People Believe Weird Things : Pseudoscience, Superstition, and Other Confusions of Our Time* , chs. 13 and 14 \(W H Freeman & Co.: 1997\).](#)

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[pseudoscience](#)



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Search the Skeptic's Dictionary

Afrocentrism

22 Apr 2000

While examining your site, I came across the entries on Afrocentrism. While some of the claims made by Afrocentrists are demonstrably false, the ancient Egyptians were dark skinned Africans, as the Arabs didn't arrive until the 7th century.

Documentation follows.

First, are several quotes from Compton's encyclopedia, obtained by searches for "Hamite"

"Most Egyptians are Hamitic Arabs. They are descendants of the Hamites of ancient Egypt and of the Arabs who migrated to Egypt after the Muslim conquests of the 7th century. The Nubians, who are related to the Berber tribes of North Africa, are located south of Aswan. They were resettled in new villages near Kom Ombo when Lake Nasser flooded their homeland. A few Europeans, primarily Armenians and Greeks, live in cities. Most are in Alexandria. "

"Ham, son of Noah; biblical ancestor of Hamites, who included the Cushites, the Phoenicians, and the Egyptians (Bible, Gen. vi, ix). "

"Kush (or Cush), the ancient name for a region of what is now part of the Sudan, in Africa, and for two powerful kingdoms that extended their influence into Egypt; first kingdom of Kush raided Upper Egypt in about 1650 BC; destroyed by Egyptian Pharaoh Amenhotep; new kingdom appeared about 750 BC; conquered all Egypt about 715 BC and founded 25th dynasty of ancient Egypt, with capital at Memphis; driven out by Assyrians under Ashurbanipal in 663 BC; Egypt destroyed the Cushite capital in 590 BC, but the kingdom survived another 900 years."

"Cushite (716-656 BC), 25th dynasty of Egypt, founded by Shabaka "

"Sudan is the Arab word for "land of the blacks," but only the southern part of the country is heavily populated by black Africans. Of a total population of nearly 30 million in the mid-1990s, more than half were Arabic-speaking adherents of the Sunnah branch of the Islam living in the north and central areas. Most black Africans living in the south are Christians or animists. Some non-Arab groups in the north have converted to Islam. Among these tribes are the Nubians, who live along the Nile; the Beja of the Red Sea Hills; and the Fur, who are settled farmers living in the Jebel Marra region in the far west."



SkepDic.com

[Afrocentrism](#)

Other information follows from a usenet discussion I was involved in at alt.fan.cecil-adams.

I wrote this: "Yeah, this looks like a white person.

<http://mcclungmuseum.utk.edu/pernex/egypt/eg-mumc1.jpg> And this Ba Bird does, too, huh?

<http://mcclungmuseum.utk.edu/pernex/egypt/eg-mumc1.jpg> Not to mention the skin color of these guys:

<http://mcclungmuseum.utk.edu/pernex/egypt/egb-text.htm> This is a picture of AMENOPHIS.

<http://www.tourism.egnet.net/culture/images/3g159.jpg> He looks uncannily like Elden Campbell, don't he?

<http://cbs.sportsline.com/u/reuters/bldphoto.cgi?CHC101041221>

<http://www.tourism.egnet.net/culture/images/11g129.jpg> shows Hatsephut. Looks like Eartha Kitt, doesn't she?

<http://www.tourism.egnet.net/culture/images/22g87.jpg> is Sesostris I. Looks like Patrick Ewing with a beard.

<http://cbs.sportsline.com/u/reuters/bldphoto.cgi?XMSG105041821>"

And some other guy wrote this: iknowso@my-deja.com

Not only were Ancient Egyptians not Arabs, they were not related (linguistically, culturally, phenotypically or religiously) to any of the western Asiatic peoples. Their roots were in Africa. They traced their origins (Papyrus of Henefu) to the Mountains of the Moon which is at the source of the White Nile in Uganda. Their legends always referred to the land south of them as Ta-Meri (land of the ancestors/fathers).

All ancient travelers to Egypt who bothered to describe the local inhabitants, described them, without exception, as having black or dark skin and wooly hair. Here are a few quotes from ancient Greeks and Romans:

1.) Danaos (describing the Aegyptiads): 'I can see the crew with their black limbs and white tunics.' (Aeschylus, *The Suppliants*, vv. 719- 20, 745)

2.) "Aegyptos conquered the country of the black-footed ones and called it Egypt after himself" (Apollodorus, *Book II*, paras 3 and 4)

3.) Lycinus (describing an Egyptian): 'this boy is not merely black; he has thick lips and his legs are too thin...his hair worn in a plait shows that he is not a freeman.' (Lucian, *Navigations*, paras 2-3)

4.) "Those who are too black are cowards, like for instance, the Egyptians and Ethiopians. But those who are excessively white are also cowards as we can see from the example of women, the complexion of courage is between the two." (?) (Aristotle, *Physiognomy*, 6)

Some have suggested that the paintings on the walls of the temples and tombs prove that AE's weren't "black". It's understandable why this statement is made when one peruses a book written by an American or European. It almost seems as if a conscious effort is made to select the most Caucasian looking sculptures and paintings. However, one gets a different impression of the people of AE when they actually go to Egypt and witness the many artifacts for themselves. Here are a few of the pictures that you never see in western books:

<http://www.tulane.edu/lester/images/Ancient.World/Egypt/A81.gif> --

-
<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt45.html>

<http://www.tulane.edu/lester/images/Ancient.World/Egypt/A46.jpg> --

-
<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt52.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt58.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt62.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt63.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt65.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt67.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt71.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt74.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt53.html>

<http://www.tulane.edu/lester/text/Ancient.World/Egypt/Egypt46.html>

Here are a few of the pictures that you never see in western books:

Here, on the right, is a picture of a Priestess of Amun:

<http://www.geocities.com/Athens/Olympus/8192/nodjmetawi.jpg>

and here, on the left, is a picture of the mummy of Masharta, son of Pinedjem I of Dynasty XXI:

<http://www.geocities.com/Athens/Olympus/8192/Hamitic.jpg>

I don't believe the AE's were a completely homogeneous culture all throughout their 2500 yr. long history of successive dynasties. However, in the face of all the evidence, many scholars are beginning to realize that AE was a fundamentally African civilization that encompassed the full range of physical characteristics present in Ethiopia, Eritrea, Somalia and all throughout the Nile Valley.

Please make the appropriate corrections to your cite.

**Thank you, and good day,
George Haley**

reply: Right. Well, the entry on Afrocentrism doesn't claim that the ancient Egyptians were a pure Semitic race with no contact with the rest of Africa, including trading, intermarriage, interbreeding, slavery, etc. What is claimed is that the ancient Egyptians were not a black African race of people and the rest of European civilization did not steal their culture from this alleged black African race. Both points seem consistent with what you and your scholarly colleagues have written.

In any case, we're all one race. I pity both the modern Greek and the modern African-American if their main source of pride comes from what some dead relatives did thousands of years ago.

31 Mar 2000

Living in the central New York region, I am essentially limited in the media outlets that are available. Syracuse, New York has two newspapers the Post Standard and the Herald Journal although both papers are basically part of the same larger entity.

Anyway the reason that I am composing this email is in regard to one of the topics that was listed in the skeptics dictionary. That topic is Afrocentrism. It was interesting to me that the dictionary had listed this pseudoscience (what it truly is) and equally compelling in light of the fact that approximately one month ago the aforementioned newspapers devoted an entire week to an editorial series which espoused these odd theories and twisted history. Without offering divergent viewpoints or listing any genuine historical references the series gave credence to the ideas that the European civilizations of Greece and Rome had taken and used accumulated knowledge in all academic fields from the Egyptians.

While it is true that the Egyptian civilization made many contributions to the world progress, the editorial provided no context for such contributions and did not highlight exactly what the contributions specifically were, in comparison to those made by the Greeks, Romans and others. It is especially interesting to note that the title of the series was "Stolen Legacy", and the work relied heavily upon pseudo scientific writer Martin Bernal. [Mary Lefkowitz](#) or others with opposing viewpoints were entirely absent in the piece.

The editorial sections of newspapers are vehicles for the free expression of ideas, but when the editorial staff of a paper begins printing highly questionable stories, without regard to reference, opposing viewpoints, traditional historical methods,

and instead gives us George James as a voice of truth, worthy of the press, I submit that we have disaster in the making. As a student of Roman history, beginning with the Etruscans and continuing to the fall of Romulus Augustulus, the Barbarian invasions, the Eastern empire, and the crowning of Charlemagne, I couldn't believe that a professional media organization would print such nonsense.

Well, maybe it was really the long ago relatives of Mr. Bernal that measured the height of the great pyramids. Thales probably ripped them off and a lawsuit is in the making.

Edna Supley

reply: Nothing the mass media present should surprise anymore.

14 Jul 1999

This is another example of white racism trying to discredit any potential successes or positivity from black people past or present. We don't even have to go back as far as Egypt. No history books mention the fact that a black man performed the first open heart surgery in the United States, or that a black man performed [sic] the traffic light, or the walkie talkie, or that a black man invented the light bulb itself used by Edison, or who the statue of liberty really is. White America is not ready for the truth, black people are not trying to take over the schools with Afrocentric teachings but inform students of the great accomplishments of the past of people of color as well as everyone else. Speaking of Egypt, the first 5 dynasties were 100% African in origin, much like the first 5 generations of slaves brought to the United States were. (The anonymous writer recommends [THE AFRICAN PRESENCE IN THE ANCIENT FAR EAST By RUNOKO RASHIDI](#). Rashidi identifies anything "black" with African, including the "black blood" of a true samurai.)

reply: Nothing positive is gained that isn't outweighed by the negative when we reconstruct history to our political wishes.

3 Dec 1996

Everybody knows that Cleopatra wasn't black--she was from Mars.

*Keep up the good work,
Aaron Ramson White*

10 Dec 1996

I realize that this is the skeptic's dictionary and all, meaning it is a dictionary for people who are skeptical about various topics, beliefs, etc. However I have a

comment on the tone of your entry on Afrocentrism. You are saying in essence that the belief that the inhabitants of ancient Egypt were black is unfounded and therefore untrue. However no one has proved that the inhabitants of Ancient Egypt were not black either. I am not saying that they were nor am I saying that they weren't. See, it can go both ways. It can be noted though that they definitely weren't of White or European descent. They were definitely people of color as is proved by Ancient Egyptian art which depicts people are a darker skin tone.

Lynne

reply: The Egyptians of 5,000 years ago were probably similar in skin tone to modern Egyptians, as today's Ethiopians are probably similar in skin tone to their ancestors. Egyptians and Ethiopians are quite distinct in skin color; you are quite right: neither is white or European. Neither ancient Egyptians nor Ethiopians apparently made as much fuss about skin color as we do, except within their own societies. In Egyptian painted sculpture, for example, males are depicted as dark, and females as light. We probably make much more of this fact than the ancient Egyptians did.

The claim that "no one has proved that the inhabitants of Ancient Egypt were not black" is curious. If by 'prove' you mean demonstrate with absolute certainty, then that is true but trivial: no empirical claim can be proved with absolute certainty. On the other hand, if by 'prove' you mean, demonstrate to a high degree of probability, then you are also right but that is because it has not needed any proof, any more than say, one needs to prove that the modern Japanese are not black. I think it is unfortunate that because of the claims of Afrocentrists, historians such as Mary Lefkowitz have been diverted to the task of providing arguments in support of the claim that the ancient Egyptians were not black.

16 Jun 1997

Dear Prof. Carroll,

While we are not in disagreement on the nature of Afrocentrism as an ahistorical creation of a usable past applied to present ends, the subject matter and its treatment by the American public do merit further questioning in the eyes of this sceptic. Some questions I have asked myself are:

1. the fundamental epistemological problem of objectivity and subjectivity as applied to history. Does not (white) American and any other history give ample evidence of the fact that history is not an object but a function of societies legitimizing their values and actions, creating traditions and identity? One example: the image of Native Americans created by whites has consistently served to justify their killing, removal, the systematic destruction of their culture, appropriation of their land - today distorted "noble savages" carry eco-

commercials. Only very recently has historical science even attempted to correct these images.

reply: bad historical work should be rejected not imitated. The standards to which historians today adhere are significantly higher than those of the past, excluding, of course, the propaganda and pap which is published as history for our children in their text books. Such stuff is no more real history than the texts which exclude mention of evolution are examples of real science. As for "noble savages" and eco-commercials....well, all I can say is you should see the ads which try to associate Indian casinos and gambling with the welfare of tribal nations. Again, these efforts at reconstruction and propaganda should not be imitated.

2. Is not the knee-jerk like panic reaction of whites towards Afrocentrism an indication of their need to preserve their own cherished myths?

reply: the reaction is neither knee-jerk nor a matter of self-preservation, but an honest concern for the truth. I don't see the concern as one regarding which tribal myths should dominate.

3. Would it not be more important to discover why Afrocentrism is gaining currency among blacks -and some whites - instead of just lambasting it for its inaccuracy? That might be a chance to enter into dialogue.

reply: before seeking explanations one must first establish that there is something which needs explaining. The critics of Afrocentrism have established that there is something which needs explaining. Now we can move on either to the question of why Afrocentrism is so popular or we can ask another question: are history departments going to continue to tolerate Afrocentrism or are they going to hold the Afrocentrists to the same standards as other faculty? I think the former question is one for sociologists to ponder; the latter is one all history departments must face. They're both important questions.

Scepticism is a good thing when universal, which means being particularly sceptical about one's own constructions of reality (Sorry for sounding so postmodern). Otherwise it degenerates into just another ideology.

I guess I am suggesting that you add an entry on perhaps not just Eurocentrism but ethnocentrism in general, even if this goes beyond the basic intention of the dictionary. Or perhaps I'm asking for a theoretical discussion on why it is that people believe things in the way they do.

Thomas Clark

Institut for English and American Studies,
J.W. Goethe Universitdt,
Frankfurt, Germany

reply: You are right that such issues go beyond the scope of the *Skeptic's Dictionary*. Ethnocentrism is a topic I cover in *Becoming a Critical Thinker*. There I write that "If we cannot master our *egocentrism* and our *ethnocentrism*--the tendency to think that we and our culture are the standards of truth and reality--we will never become critical thinkers. Every society, however, promotes ethnocentrism and discourages the disputing of traditional beliefs and values. Thus, critical thinking is likely to be more rare than common, more difficult than easy to achieve."

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Not Out of Africa

How Afrocentrism Became an Excuse to Teach Myth as History

by Mary Lefkowitz

How Afrocentrism Became an Excuse to Teach Myth as History

by Mary Lefkowitz

New York: Basic Books, 1996

This is a book for teachers and scholars, written by a professor of classics at Wellesley College. I wish there were no need for such a book. It is to our national shame both that [Afrocentrism](#) has been allowed to flourish inside our schools, but outside the boundaries of the traditional standards of empirical research, and that there has been a need for Afrocentrism to develop in the first place.

Lefkowitz has defended the profession of teaching against those who would use the classroom as a pulpit for propaganda. And she has defended the standards of honesty and accuracy in the interpretation of history against the [pseudohistorians](#) who repress such values in favor of advancing political purposes. Watching her do this is like watching someone shoot fish in a barrel.

My overall emotional response to Lefkowitz's obliteration of the opponents of historical accuracy and honesty is not one of joy but of disgust and sadness. We have witnessed a similar debacle in the debates over creationism vs. evolution with scholars such as Stephen Jay Gould stripping away the veneer of argument from [creationists](#). Gould can hardly debate and argue with his opponents, for they have all but obliterated traditional standards of evidence and argument. So too with Lefkowitz and her opponents. They distort and twist facts and interpretations of facts at will. Many scholars have been afraid to take on the creationists when they have threatened science and scientific knowledge, methods and standards. Textbook authors still kowtow to religious fundamentalists and falsify science in text after text by ignoring evolution or treating it as "just a theory, like creationism." Likewise, few scholars have publicly stated their opposition to Afrocentrism. Lefkowitz stands out as a voice in the academic wilderness, defending traditional standards of inductive reasoning to the most probable conclusions. It is as if the voices of relativism, historicism and the fear of being labelled a "racist" have silenced the majority of scholars and teachers.

What is offensive about Afrocentrism is not that its advocates assert such

things as that Socrates and Cleopatra were black Africans or that Aristotle stole his ideas from the library at Alexandria when he visited Egypt. What is offensive is not that they claim that the ancient Greeks took everything they are known for from the Egyptians, and that those Egyptians were black Africans. What is offensive is that these claims are put forth as articles of faith. Any challenge to them is seen as racist. What is offensive is that these claims are not based on scholarly research, evidence and argument from evidence. Nor are they based on a sincere desire to discover historical truth. They are based on unsubstantiated opinions of mythmakers and fiction writers. They are based on the *possibility* they are true. They are based on a desire for them to be true. They are based on a preconceived notion that white scholars have conspired from time immemorial to repress the truth that everything good about Western civilization came out of black Africa. They are based on the desire to give African-American children self-esteem and pride.

How did this happen? How did Afrocentrism develop unchecked until now? My opinion is that racism made Afrocentrism necessary. That doesn't justify or excuse the excesses of Afrocentrism, but it makes it understandable. Martin Bernal's *Black Athena*, to take just one example, is a work of propaganda, but it is pleasing propaganda to some ears. It is a voice saying to a people that you are noble, you come from greatness, you are great, your children are great. It is a voice saying that racism may have belittled you and demeaned you in its attempts to make you feel inferior. But you are the one who is superior. The racists are the ones who are inferior.

The choice is flight or fight; the Afrocentrists have chosen to fight. Have scholars been fair, accurate and honest in their treatment of people of color? No. Most of the sins of traditional scholarship may have been sins of omission, but they were grievous nonetheless. Have respected historians falsified facts, twisted evidence, or jumped to grand conclusions on the basis of mere possibilities, in order to serve some political purpose? Yes. It does little good to protest that these are not admirable qualities and should be avoided. Why would Afrocentrists follow in the footsteps of historians whose ideas of fairness, accuracy, honesty and integrity have traditionally ignored or belittled Africa and the descendants of Africans on other continents?

Do these facts about historians justify Afrocentrism? Of course not. Nothing justifies a Louis Farrakan proclaiming to millions of people that Napoleon's soldiers defaced the Egyptian sphinx because he was offended by its negroid features. You do not elevate your race by proclaiming as true something for which there is no evidence. By spreading such falsehoods and myths as historical truth, you breed contempt for white and black people alike. Your black followers will accept your claim as one more piece of evidence of white hatred for blacks; and many whites will see you as one more black racist blaming whites for all the problems of all the people of your race.

The modern Afrocentrists are not the first to claim Egypt as the source of

Western civilization, though they're the first to claim that the ancient Egyptians were *black* Africans. Many ancient writers claimed Egypt as the source of Greek art, philosophy, science, etc. Lefkowitz names Herodotus, Strabo, Diadorus, Eudoxos, Aristobulus and others as tracing Greek cultural achievements to Egyptian sources. Most modern classicists are distrustful of these ancient accounts. Not only are many of their claims contradicted by evidence, but their methods of gathering data cast serious doubts upon the accuracy of the claims they make. Not to put too fine a point on it, these guys were sloppy and gullible to a fault. Modern classicists therefore do not take them at their word, but are cautious in evaluating their claims, attempting to check them against what is now known from later research. Modern Afrocentrists, on the other hand, commit two sins in the use of these ancient sources: they accept them uncritically and selectively. When the claims of these ancient writers fit their political agenda, they accept them at face value; when they don't, they ignore them.

Afrocentrists are not the only ones, however, to approach ancient stories and myths with an uncritical and selective eye. This approach is a favorite of the catastrophist pseudohistorian [Immanuel Velikovsky](#). In fact, the Afrocentrists, Velikovsky and the ancient writers they are fond of using as sources for their many questionable claims, share in common the trait of uncritical and non-skeptical thinking. They are all fond of etymologies and words that they think would sound alike in ancient languages. And they use trivial similarities in words or practices or stories as scientific evidence of the "truths" they espouse. All seem extremely erudite with their parallels, etymologies, homophones and scholarly citations from sources of various cultures. All seem more interested in telling a good story and satisfying some political, religious or philosophical goal, than they are in checking out their stories against *all* the evidence. But the modern Afrocentrist and catastrophist have in common two things that their ancient sources did not: they put forth their claims as articles of faith and they believe that there is a *conspiracy* to suppress their notions.

It is not an accident that the students of Afrocentrism and catastrophism act more like disciples of a guru than students of a scientific teacher. They are on a mission, not a quest. And, as with many before them with noble goals, they believe the end justifies the means. Hence, it is nearly futile to engage them in debate. Scholars have difficulty debating opponents such as Afrocentrists, catastrophists, creationists or even anti-abortionists, because they expect their opponents to be civil and play by the rules of scholarly evidence. They mistakenly believe they have entered an arena where all sides are in quest of the same truth. What they are actually getting into is a street fight, where the goal is to defeat and humiliate your enemy. Their opponents don't follow traditional standards of evidence in their printed arguments and diatribes, so why expect them to be any different in a public debate? If you challenge their accuracy, they will question your integrity. If you ask for evidence, they will insult you. If you challenge their sources, you will be asked to prove the absolute certainty of your sources. You think the arena is an intellectual one

where the combatants use wit and intelligence to score points, but while you are looking above your opponent's shoulders, he will kick you in the groin. You may have the evidence and the arguments on your side but your opponent doesn't care about the evidence and is not interested in your arguments. He already knows the truth.

Dr. Lefkowitz tried to debate Afrocentrism and seemed genuinely shaken that she wasn't treated like a scholar, that her opponents and their disciples are fond of poisoning the well and other ad hominem attacks and that they do not follow traditional scholarly standards of evidence. On a clip I saw of Lefkowitz debating Afrocentrists ("60 Minutes", Nov. 24, 1996), the African-American moderator asks her, "And how many times have *you* been to Africa, Professor Lefkowitz?" When she replies that she's never been to Africa, the moderator says triumphantly, "I thought so." The audience (I think it was Howard University, but I could be mistaken) indicated by its response that they, along with the moderator, believe that going to Africa is a necessary condition for speaking with authority on Afrocentrism. They also seemed to believe that being African-American and going to Egypt in itself gives one authority on Afrocentrism not available to whites.

Afrocentrists are already entrenched in our schools and universities. They are part of a growing, not diminishing, movement. Is there hope that the excesses of Afrocentrism might be overcome and the good that motivates its adherents will eventually drive Afrocentrists to a quest for historical truth? My view is that it will not be possible to curb the excesses and errors of Afrocentrism because its major proponents advocate an epistemology which rejects the notion that there is such a thing as "truth" or "accuracy" or "getting it right rather than wrong." White people have their truth and Afrocentrists have their truth. Fairness demands that each "truth" be heard. If this sounds vaguely familiar, that's because it is: the creationists have maintained a similar kind of notion with respect to "theories." Fairness demands that the theory of evolution and the theory of creationism should be taught to our children. Theories aren't absolutely certain, so they're epistemologically equal. Truths aren't absolutely certain or objective, so they're epistemologically equal. The errors behind these beliefs are distinct, however. The creationists do not recognize that theories of different kinds are not in competition with one another: metaphysical theories such as creationism do not compete with scientific theories such as evolution. Furthermore, they are wrong in assuming that some theories are not better than others. The history of science could supply them with plenty of examples of theories replacing other theories because they are superior to the ones they replace.

Afrocentrists, on the other hand, seem to believe that all truth is subjective. Truth is whatever you want it to be. Since historians interpret facts differently, there is no such thing as historical accuracy. Any interpretation is as good as any other, epistemologically speaking. Morally, some views are superior to others. It is just arrogance and racism which gives greater value to white theories than to Afrocentrist theories. Whites interpret the same data

differently from Afrocentrists because whites have a different agenda. Differences of opinion are not resolvable by scholarly argument over evidence, because all scholars are biased. To an Afrocentrist the fact that we do not know who Cleopatra's paternal grandmother was is sufficient evidence to justify believing that Cleopatra was a black African. The fact that she was a member of the Ptolemaic line, recognized by all as Macedonian, which for generations had practiced incestual marriages to keep the bloodline pure, is of little importance. It is politically important that young African-American children believe that they descend from Queens like Cleopatra.

One can admire Professor Lefkowitz for taking on this challenge, but I fear she has chosen an opponent she cannot fight with, much less defeat. If, however, some eminent African-American scholars enter the arena, not to kill the dragon but to tame it and direct it, she will have done much good not only for historical scholarship and academic integrity but for African-American scholarship and integrity as well.

The only complaint I have about the book is that it is very repetitious. Much of the text is based on essays previously published and little effort went into editing those essays so that the book would be more focused and streamlined. Also, there is a glitch in the introduction which states that the third chapter will deal with the issue of whether Greek philosophy was stolen from the Egyptians. That topic is also stated in the introduction to be the focus of chapter five, which it is. Chapter three, "Ancient Myths of Cultural Dependency," actually concerns a much broader topic: the way historians such as Herodotus, Diodorus, Strabo, Eudoxus and Aristobulus created the myth that the Greeks owed their entire culture to the Egyptians.

Chapter one describes how the author became involved in the debunking of Afrocentrism. At a lecture at Wellesley given by Dr. Yosef A.A. ben-Jochannan, introduced as "a distinguished Egyptologist," she asked him what his evidence was for his claim that Aristotle had robbed the library at Alexandria and stolen his ideas from black Egyptians, when that library had not been built until after Aristotle's death. The Egyptologist said he resented the tone of her inquiry; several students called her a racist for asking such a question; and colleagues indicated that they were indifferent to the matter.

Chapter two is called "Myths of African Origins," and focuses on the myth that Egyptians invaded Greece during the second millennium B.C., a claim made in *Civilization or Barbarism* (1981) by the Senegalese scholar Cheikh Anta Diop. The main source for Diop's claim is Diodorus of Sicily, who wrote in the first century B.C. Professor Lefkowitz is not the first scholar to question the reliability and accuracy of Diodorus. Diop's other sources are quickly disposed of by Lefkowitz and she moves on to Martin Bernal's *Black Athena*, who also treats myths and stories as history. She engages Bernal on his use of philological evidence and questions his etymologies and assumed homophones and misunderstood homographs of various Egyptian and Greek words. She also mentions that many of the basic claims of Afrocentrism

originate in France in the eighteenth century, but that will be the subject matter for chapter four. In chapter two, she focuses on the notion that Socrates and Cleopatra were black Africans.

The main evidence for the claim that Socrates was black seems to be (a) he could have been black, (b) he is compared to a silenus by Plato, and the features of the silenus were associated with Ethiopians by the Greeks, and (c) there is a conspiracy to suppress the truth about black supremacy.

Chapter four is called "The Myth of the Egyptian Mystery System." Here the author shows the origin for the myth that an ancient Egyptian mystery religion was the source of Greek and Roman mystery religions. The idea was given its Afrocentrist push by George G.M. James in *Stolen Legacy* (1954). James's principal sources were Masonic, especially *The Ancient Mysteries and Modern Masonry* (1909) by the Rev. Charles H. Vail. The Masons in turn derived their misconceptions about Egyptian mystery and initiation rites from the eighteenth century work of fiction *Sethos, a History or Biography, based on Unpublished Memoirs of Ancient Egypt* (1731) by the Abbe Jean Terrason, a professor of Greek. Terrason had no access to Egyptian sources and he would be long dead before Egyptian hieroglyphics could be deciphered. But Terrason knew the Greek and Latin writers well. So he constructed an imaginary Egyptian religion based upon sources which described Greek and Latin rites as if they were Egyptian. Hence, one of the main sources for Afrocentric Egyptology turns out actually to be Greece and Rome. Thus, many of the claims that the modern world owes its origins to black Egyptians rather than to Greeks and Romans, turn out to mean that we owe a debt to Greece and Rome. The Greeks would have called this *irony*. I don't know what Afrocentrists call it.

Chapter five is devoted to James's *Stolen Legacy*, which Lefkowitz calls "perhaps the most influential Afrocentrist text." Terrason and Herodotus are fingered as the main sources for "The Myth of the Stolen Legacy." This chapter connects James to Frederick Douglass (1817-1895), Edward Wilmot Blyden (1832-1912) and Marcus Mosiah Garvey (1887-1940), men who are considered heroes by many African-Americans. Philosophy teachers will find this chapter especially interesting, since one of the main themes of *Stolen Legacy* is that Greek philosophy was *all* stolen from the Egyptians.

The sixth and concluding chapter takes on such issues as Should Afrocentrism be taught? And what will its longterm effects be? Is pseudohistory to be admitted into our curricula? Does historicism mean we must accept the notion of "many truths"? Are there no limits to academic freedom? She might well have asked for directions to the Records Department of the Ministry of Truth where

"all history was a palimpsest, scraped clean and reinscribed exactly as often as was necessary" (George Orwell, 1984).

Robert T. Carroll
November 27, 1996



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further reading

[afrocentrism](#)

[pseudohistory](#)

[HarperCollins Page on Dr. Lefkowitz](#)

[Black Athena Revisited](#)

[Willful distortions of history](#) by Mary R. Lefkowitz

[The myth of a 'Stolen Legacy'](#) by Mary R. Lefkowitz

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agnosticism

Agnosticism is the position of believing that knowledge of the existence or non-existence of God is impossible. It is often put forth as a middle ground between [theism](#) and [atheism](#). Understood this way, agnosticism is [skepticism](#) regarding all things theological. The agnostic holds that human knowledge is limited to the natural world, that the mind is incapable of knowledge of the supernatural. Understood this way, an agnostic could also be a theist or an atheist. The former is called a *fideist*, one who believes in God purely on faith. The latter is sometimes accused by theists of having *faith in the non-existence of God*, but the accusation is absurd and the expression meaningless. The agnostic atheist simply finds no compelling reason to believe in God.

The term 'agnostic' was created by [T. H. Huxley](#) (1825-1895), who took his cue from [David Hume](#) and [Immanuel Kant](#). Huxley says that he invented the term to describe what he thought made him unique among his fellow thinkers:

They were quite sure that they had attained a certain "gnosis" -- had more or less successfully solved the problem of existence; while I was quite sure I had not, and had a pretty strong conviction that the problem was insoluble.

'Agnostic' came to mind, he says, because the term was "suggestively antithetic to the '[gnostic](#)' of Church history, who professed to know so much about the very things of which I was ignorant..." Huxley seems to have intended the term to mean that [metaphysics](#) is, more or less, bunk. In short, he seems to have agreed with Hume's conclusion at the end of *An Enquiry Concerning Human Understanding*:

When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume; of divinity or school metaphysics, for instance; let us ask, Does it contain any abstract reasoning concerning quantity or number? No. Does it contain any experimental reasoning concerning matter of fact and existence? No. Commit it then to the flames: for it can contain nothing but sophistry and illusion.*

Kant's *Critique of Pure Reason* resolved some of the main epistemological issues raised by Hume, but at the expense of rejecting the possibility of knowing anything beyond appearances of phenomena. We can't know God but the *idea* of God is a practical necessity, according to [Kant](#).

further reading

- [agnosticism](#) - *Catholic Encyclopedia*
- [agnosticism](#) - Religious Tolerance Page
- [Why Am I An Agnostic?](#) by Robert Green Ingersoll (1889)
- [What Is Agnosticism?](#) (1981) by H. J. Blackham
- [Absurdities of the Bible](#) by Clarence Darrow

Hume, David. [An Enquiry Concerning Human Understanding](#) (on-line text)

[Huxley, Thomas Henry. *Agnosticism and Christianity and Other Essays* \(Great Mind Series\) \(Prometheus Books,1992\).](#)

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[Afrocentrism](#)

[Akashic record](#)



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 [Texas sharpshooter
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theist

A theist is someone who denies that God doesn't exist.

further reading

- [Arguments for Theism](#) - The Freethought Zone

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[theosophist](#) 

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by Atheist Station](#)

[Imagine no religion](#)
'Free, proud, godless,
and on the move' at
the American
Atheists' convention.
Not to mention
finding a new
definition of WWJD.
BY DAN KENNEDY

[Atheist Still on Death
Row! by Babu
Gogineni](#)



[Smith, George H.](#)
[Atheism : the Case
Against God \(Buffalo,
N.Y.: Prometheus
Books, 1979\).](#)

atheism

Atheism is traditionally defined as *disbelief* in the existence of God. As such, atheism involves *active rejection* of belief in the existence of God.

However, since there are many concepts of God and these concepts are usually rooted in some culture or tradition, atheism might be defined as the belief that a particular word used to refer to a particular god is a word that has no reference. Thus, there are as many different kinds of atheism as there are names of gods.

Some atheists may know of many gods and reject belief in the existence of all of them. Such a person might be called a *polytheist*. But most people who consider themselves atheists probably mean that they do not believe in the existence of the local god. For example, most people who call themselves atheists in a culture where the Judeo-Christian-Islamic God (JCIG) dominates would mean, at the very least, that they deny that there is an Omnipotent and Omniscient Providential Personal Creator of the universe. On the other hand, people who believe in the JCIG would consider such denial tantamount to atheism. [Baruch de Spinoza](#) (1632-1677), for example, defined God as being identical to Nature and as a substance with infinite attributes. Many Jews and Christians considered him an atheist because he rejected both the traditional JCIG and the belief in personal immortality. [Thomas Hobbes](#) (1588-1679) was also considered an atheist because he believed that all substances are material and that God must therefore be material, not spiritual. Yet, neither Spinoza nor Hobbes called themselves atheists.

Epicurus did not call himself an atheist, either, but he rejected the concept of the gods popular in ancient Greece. The gods are perfect, he said. Therefore, they cannot be the imperfect beings depicted by Hesiod, Homer, and others. Their gods have human flaws, including jealousy. Perfect beings would not be troubled by anything, including the behavior of humans. Hence, the notion that the gods will reward or punish us is absurd. To be perfect is to be unperturbed. The concept of perfection, therefore, requires that the gods be indifferent to human behavior. Some have rejected belief in the Christian God for similar reasons. The idea of a perfect being creating the universe is self-contradictory. How can perfection be improved upon? To create is to indicate a lack, an imperfection. If that objection can be answered, another arises: if God is All-Good and All-Powerful, evil should not exist. Therefore, either God is All-Good but allows evil because God is not All-Powerful, or God is All-Powerful but allows evil because God is not All-Good. Such an argument clearly does not deny the existence of all gods.

Others have rejected the Christian God because they believe that the concept

of *worship*, essential to most Christians, contradicts the concept of *omnipotence* (Rachels 1989). Still others reject a belief in the JCIG because they consider the scriptures used to support that belief to be unbelievable. Some theologians have tried to prove through reason alone that this God exists. Rejection of such proofs, however, is not atheism.

Some Christians consider Buddhists to be atheists, apparently for the same reason they consider Spinoza or Plato to be atheists: Anyone who rejects the Omnipotent and All-Good Providential Personal Creator rejects God. Yet, rejecting the JCIG is not to reject all gods. Nor is rejecting the JCIG the same as rejecting belief in an ultimate ground or principle of being and goodness, a being that explains both why there is something rather than nothing and why everything is as it is. Nor is rejection of the JCIG the same as rejecting belief in a realm of beings such as [devas](#) or spirits that are not limited by mortality and other human or animal frailties.

Finally, atheists do not deny that people have ‘mystical’ or ‘religious’ experiences, where one feels God’s presence or a sense of the oneness and significance of everything in the universe. Nor do atheists deny that many people experience God’s presence in their everyday lives. Atheists deny that the brain states that result in such feelings and experiences have supernatural causes.

How widespread is atheism? A worldwide survey in 2000 by the [Gallup polling agency](#) found that 8% do not think there is in any spirit, personal God, or life force. Another 17% are not sure. However, more than half the world’s population, and more than 90% of the world’s [scientists](#), do not believe in a personal God, and hence would be considered atheists by many Christians.

See **related entries** on [agnosticism](#), God, [miracles](#) and [theism](#).

further reading

[reader comments](#)

- [The Secular Web](#)
- [The Atheism Web](#)
- [Arguments for Atheism](#) - The Freethought Zone
- [Welcome to alt.atheism!](#)
- [The Atheist Alliance](#)
- [AmericanAtheist: A Journal of Atheist News and Thought](#)
- [Life, the Universe, and Everything: An Interview with Douglas Adams](#)
(author of Hitchhiker's Guide to the Galaxy) by David Silverman

- [The Buddhist Attitude to God](#) by Dr V. A. Gunasekara
- [RELIGION IN THE WORLD AT THE END OF THE MILLENNIUM](#) Gallup poll

Online Texts

- [Darrow, Clarence. *Absurdities of the Bible*](#)
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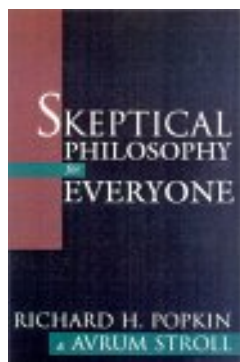
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Philosophy for
Everyone by
Richard H. Popkin,
Avrum Stroll](#)

Philosophical Skepticism

The passion for philosophy...may only serve...to foster a predominant inclination...of the natural temper....There is, however one species of philosophy which seems little liable to this inconvenience, and that because it strikes ... no disorderly passion of the human mind, nor can mingle itself with any natural affection or propensity; and that is the Academic or sceptical philosophy....It is surprising, therefore, that this philosophy, which in almost every instance must be harmless and innocent, should be the subject of so much groundless reproach and blame.
--David Hume, *Inquiry Concerning Human Understanding*

The worst speculative Sceptic ever I knew, was a much better Man than the best superstitious Devotee & Bigot.
--David Hume (Letter to Gilbert Elliot of Minto, March 10, 1751)

Skepticism originally arose from metaphysics and its lawless dialectics.
--Immanuel Kant

Philosophical Skepticism is a critical attitude which systematically questions the notion that absolute knowledge and certainty are possible, either in general or in particular fields. Philosophical Skepticism is opposed to *philosophical dogmatism*, which maintains that a certain set of positive statements are authoritative, absolutely certain and true.

Philosophical Skepticism should be distinguished from *ordinary skepticism*, where doubts are raised against certain beliefs or types of beliefs because the evidence for the particular belief or type of belief is weak or lacking. Ordinary skeptics are not credulous or gullible. They don't take things on trust, but must see the evidence before believing. Ordinary skeptics doubt the miraculous claims of religions, the claims of alien abductions, the claims of psychoanalysis, etc. But they do not necessarily doubt that certainty or knowledge is possible. Nor do they doubt these things because of systematic arguments that undermine all knowledge claims.

On the other hand, Philosophical Skeptics can be quite gullible. Most of what we know about ancient Philosophical Skepticism comes from [Sextus Empiricus](#), who flourished around the year 200, and who believed, among other things, that some animals bypass fertilization in reproduction and originate in fire, fermented wine, mud, slime, donkeys, cabbage, fruit, and

putrefied animals.

Philosophical Skepticism is very ancient. For example, the sophist [Gorgias](#) (483-378 BCE) claimed that nothing exists or if something exists, it cannot be known, or if something does exist and can be known, it cannot be communicated. Gorgias, however, is known primarily as a [Sophist](#) rather than as a Philosophical Skeptic. [Pyrrho](#) (c. 360-c.270 BCE) is generally considered the first Philosophical Skeptic in western philosophy. Little is known of Pyrrho or his followers, or of the next big names in the history of skepticism, Arcesilaus (ca. 316-241 BCE) and Carneades (214-270 BCE), each of whom headed the [Academy](#) founded by Plato. The first group of Philosophical Sceptics are known as *Pyrrhonists*, the latter are known as the *Academics*. Neither the Pyrrhonists nor the Academics seem to have advocated the kind of nihilism Gorgias maintained.

Other sophists can also be seen as Philosophical Sceptics. For example, [Protagoras](#) (480-411 BCE) said that "Man is the measure of all things." This statement is usually interpreted to mean that there are no absolute standards or values and that each person is the standard of truth in all things. When applied to moral rules, this view is known as [moral relativism](#), a type of Philosophical Skepticism that denies there are any absolute moral values.

Gorgias' Skepticism was based upon his belief that all knowledge originates in sense experience and sense experience varies from person to person, moment to moment. His view might be called *sensory Skepticism*, the philosophical position that we cannot have absolute certainty about anything that is based solely on sense experience. Throughout the history of philosophy, arguments demonstrating the unreliability of sense experience have flourished, especially among dogmatists such as [Plato](#) and [Descartes](#). One common argument is that what we perceive via the senses cannot be a reliable guide as to what is really beyond those appearances. The [materialist Democritus](#) (460-370 BCE), a contemporary of Gorgias and not generally considered a Philosophical Skeptic, made such an argument.

Throughout the history of philosophy, sensory Sceptics have argued that we perceive only things as they appear to us and cannot know what, if anything, causes those appearances. Thus, if there is sense knowledge, it is always personal, immediate and mutable. Any inferences from appearances are subject to error and we are without a method to know whether the inferences or judgments we make are correct. However, these arguments did not prevent many Sceptics from putting forth a defense of *probabilism* with regard to empirical knowledge. Nor has sensory Skepticism hindered dogmatists from seeking absolute truth elsewhere, namely in Reason or Logic.

Perhaps the broadest criticism of the possibility of absolute truth is to be found in the Sceptic's argument regarding the *criterion of truth*. Any criterion

used to judge the truth of a claim can be challenged because a further criterion is needed by which to judge the present criterion, and so on ad infinitum. This argument did not deter philosophers such as Plato and Descartes from claiming to have found an absolutely impeccable criterion of truth. While most Skeptics would reject the notion that such criteria are what their advocates claim them to be, most would probably accept the arguments of St. Augustine and others that there are absolutely certain claims, but that these are matters of Logic or definition and have nothing to do with establishing the certainty of any claim that goes beyond immediate perception.

The ancient Skeptics did not all agree on even the most fundamental of matters, such as whether certainty and knowledge are possible. Some believed that they knew certainty was not possible; others claimed that they did not know whether knowledge is possible. The position that one knows that knowledge is impossible seems to be self-refuting. The view that one does not know whether knowledge is possible is consistent with the notion that it makes sense to strive to know, even if one can't be sure that one will arrive at knowledge. And, while some ancient Skeptics seem to have advocated that the ideal is to have no strong opinions, most seem to have maintained that when there was a preponderance of evidence supporting the probability of one position rather than another, then belief in the more probable position was desirable. Most ancient Skeptics do not seem to have believed that simply because one cannot be absolutely certain about anything, one should therefore suspend judgment on *all* things. Such a view would be self-refuting. For, according to the principle itself one should not accept it, but suspend judgment on it. Suspending judgment on claims should be reserved for those claims one knows nothing about, or *can* know nothing about, and for those claims for which the evidence is proportionate on opposing sides. It may be true that nothing is absolutely certain, but it is not true that all claims are equally probable. A reasonable person uses probability as a guide to belief, not absolute certainty, according to most Philosophical Skeptics.

The Greek word *skeptikoi* means *seekers* or *inquirers*. Socrates, who claimed that the only thing he knew was that he knew nothing, frequently said "*Skepton*," meaning *we must investigate this*. The Pyrrhonists sought the truth, even if most of the time that meant that they sought contrary arguments to dogmatic positions held by other philosophers, such as the [Stoics](#) or [Epicureans](#). On those issues where argument and counterargument equaled one another, the Pyrrhonists held that we should suspend judgment. They apparently found that such a stance fit well with their desired goal of peace of mind (*ataraxia*). For, it is the dogmatist who gets agitated when he doesn't possess the good or truth he knows he should have, or when others refuse to accept what he knows is the truth.

The other ancient school of Skeptics, the Academics, rejected their founder's metaphysical dogmatism and defended probabilism. It is this view that probabilities rather than absolute certainty are possible and do us just fine on

the important matters in life that made possible the advancements of modern science in the seventeenth century. The dogmatists, led by Descartes and the [Continental Rationalists](#), made contributions to math (analytic geometry and calculus) but not to physics; whereas, the probabilists, led by the founders of the Royal Society and the [British Empiricists](#), made modern empirical science possible.

While probabilism in empirical matters was defended as reasonable by Skeptics, such an attitude was considered unreasonable with regard to metaphysics. One particular type of *metaphysical skepticism* (also known as [positivism](#)) is noteworthy: *theological skepticism*. A theological skeptic raises doubts regarding the possibility of knowledge about God. A theological skeptic may be an [atheist](#), but the two positions are distinct and a theological skeptic may be a [theist](#) or an [agnostic](#). The theological skeptic maintains that we cannot know for certain whether God exists. Such a view does not entail the notion that we should be atheists. The theological skeptic does not necessarily hold that one should only assent to absolutely certain propositions. Some theological skeptics, however, will defend atheism on the grounds that there is much more support for the probability that God does not exist than for the probability that God exists. A theist might disagree and think the probability is greater for theism. An agnostic, as distinguished from a theological skeptic, would hold that neither theism nor atheism is more probable than the other.

Theological skepticism is based upon the nature of theological claims and the nature of the human mind. Theological claims transcend the limits of human knowledge. It is for this reason that some Skeptics assert that revelation from God is necessary. Ordinary skeptics may be atheists and be completely unaware of the arguments of theological skepticism. The ordinary skeptic may be an atheist simply because he or she perceives little, if any, evidence for the belief in God.

In addition to providing philosophical doubts about metaphysics, some Skeptics aimed their arguments at specific types of claims. One of the most important figures in the history of Skepticism is [David Hume](#) (1711-1776), whose skeptical arguments against belief in [miracles](#) is still considered by many Skeptics to be the best single argument in the history of Skepticism. In fact, Hume hoped his argument would serve as "an everlasting check to all kinds of superstitious delusion." Basically, Hume argues that for the same reason it is reasonable to avoid the vicious dog trying to bite us, it is reasonable to reject miraculous claims. Miraculous claims assert that a violation of the laws of nature has occurred. Laws of nature are based on experience. Experience is our guide in avoiding the vicious dog and must be our guide in judging the miraculous event. To accept an event as miraculous is to accept that experience is not a reliable guide. However, it is our *only* guide in such matters, unless we abandon reason and believe on pure [faith](#). As he so eloquently and succinctly puts it:

A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined.

What other kinds of superstitious delusions would Hume's argument apply to? It seems that it would apply to things such as [homeopathy](#), [channeling](#), [astral projection](#), [levitation](#), [past life regression](#), [psychic surgery](#), [map dowsing](#), and other things which require us to abandon experience as a guide. Claims about [ESP](#), however, would not be covered by the argument, unless advocates maintain that ESP occurs outside the realm of the laws of nature. As long as the ESP advocate claims that ESP follows natural laws but we haven't discovered them yet, then Hume's argument would not apply.

Many Skeptics would agree that Logic is an area where dogmatism is justified. The *principle of contradiction*, that a statement is either true or false but not both, is accepted by many Skeptics as true but empty. That is, such a truth reveals nothing about the world of experience. In addition to formal truths, such as the principle of contradiction or the *principle of identity*, most Skeptics would probably accept that there are semantic truths, i.e., some statements that are true by definition. "A bachelor is an unmarried male," is true and does provide information about the world of experience, namely, how a certain word is used in a certain language. But the statement is a matter of convention, not discovery.

Philosophical Skepticism was never put forth as a literal guide for practical living. The earliest Skeptics did not allow vicious dogs to bite them on the ground that their senses might be deceiving them. Even if it cannot be proved with absolute certainty that any phenomenal object is real, experience is a good guide as to the probability of what will happen if one allows a vicious dog to tear into one's leg. Skeptics don't deny the reality of sense perception. Dog bites hurt and honey tastes sweet. What the Skeptics deny is that beyond the appearances of the biting dog there is a "dog essence" or that the experience of sweetness when tasting honey justifies inferring that "sweetness" is part of the essence of honey. Skeptics don't deny appearances and subjective knowledge. They don't deny that one bitten by a dog feels real pain and knows he or she is in pain. Skeptics deny that it is justifiable to infer from subjective experience to indubitable propositions about a reality beyond those appearances. Any inference to "objective reality," a reality that transcends immediate experience, should be couched in probabilistic language at best.

Nevertheless, ancient Skepticism was considered a guide for living by its advocates. Their goal was *ataraxia*, a state of no perturbedness, of peace of mind. Denying appearances would not serve such a goal. Rejecting

dogmatism did. Finding ways to combat dogmatism is still the central element of Philosophical Skepticism. Absolute certainty is not needed, according to Skeptics, either for science or for daily living. Science can do quite well even if limited to appearances and to probabilities. We can find guides for daily living, including moral principles, without needing absolute certainty. We can figure out what principles are likely to lead us to what we desire: a peaceful, happy life. Many Philosophical Sceptics of the Greco-Roman period advocated a very conservative lifestyle, maintaining that nature and custom know best. They advocated following the laws and customs, including the religious customs, of one's native country. They believed that following our natural appetites is a generally reliable guide to living well. It seems, however, that social and political conservatism, while probably serving well the goal of *ataraxia* for most Sceptics, is a non sequitur. That is, such a position is not a reasonable inference from either sensory or moral skepticism. The probabilism advocated for science seems sufficient for practical living as well.

Dogmatic philosophies have become rare. The age of metaphysics is long gone, indicating that the Sceptics have won the war with the Dogmatists. Logic is about the only philosophical area left where professional philosophers still speak of absolute certainty with a straight face. The chance of another Plato or Hegel arising in the 21st century seems very slim. Most philosophers today content themselves with probabilistic arguments based on empirical knowledge and the application of logical principles to concepts.

further reading

[reader comments](#)

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[sixth sense](#)

[sleep paralysis](#)



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metaphysics

*...metaphysics...has for centuries spoiled many a sound mind. --
Immanuel Kant*

Metaphysics is a branch of philosophy consisting of [ontology](#) and [cosmology](#). In the 'weak' sense, metaphysics is used loosely to refer to New Age and non-empirical notions such as 'energy' ([chi](#), [prana](#)) being *balanced, harmonized, tuned, aligned, unblocked*, etc. Although 'metaphysics' in the weak sense is the most common in the *Skeptic's Dictionary*, here we are concerned with 'metaphysics' in the strong sense.

The term 'metaphysics' is often used to entail ideas and theories as to what kinds of beings are real, the nature of those beings and of the concepts and language used to think and speak or write about those beings. For example, a theory of mind would be a metaphysical theory concerned with mental phenomena and related concepts such as *perception, idea, consciousness, memory, intention, motive, reasoning, etc.*

However, typically, 'metaphysics' refers to broad theories of reality, such as [materialism](#) and [dualism](#), and to broad issues regarding the nature of reality.

Why is there something rather than nothing? Is there free will or is every action determined by causes? Was the universe created or has it always existed? Are there spiritual beings? Is there life after death? What is the nature of the universe, of substance, causality, etc.? These are all metaphysical questions.

Most philosophers would agree that metaphysical claims are not scientific and that contradictory metaphysical positions cannot be tested empirically to determine which is false. For example, [materialism](#) and [dualism](#) are contradictory but both theories are coherent and consistent with experience, and there is no empirical event that could falsify either theory.

Modern philosophy is often said to begin with Descartes, when the focus of philosophy turned to epistemological questions, i.e., questions regarding the origins, nature, and limits of knowledge. Metaphysical speculation about kinds of realities, which at one time dominated Western philosophy, has gradually given way to careful analyses of what can reasonably be posited about reality given what we know about how we come to experience reality and how we come to generate ideas about reality.

Philosophers give various reasons for preferring one metaphysical belief to

another. One thinks one's own theory is more coherent than a rival theory, or that one's own belief has more explanatory power or requires fewer assumptions. Some argue that their metaphysical beliefs fit better with what is known from other disciplines such as science, history, or psychology. Some criticize rival theories for being too farfetched: possible but implausible.

Some defend their metaphysical beliefs by appealing to the consequences of belief, e.g., it gives hope for an afterlife or meaning to existence. Others maintain that such considerations are irrelevant to the truth of the claims, and indicate the belief is based more on desire than good logical reasons.

Since coherent metaphysical beliefs cannot be refuted it is sometimes maintained that philosophers adhere to their metaphysical theories more out of personal disposition and temperament than evidence and proof.

Some consider metaphysics to represent what is highest in human nature, the drive to know and understand the nature of the universe in which we find ourselves while we move towards our inevitable end. Others consider metaphysics, specifically speculative metaphysics about non-empirical and transcendent realities, to be, more or less, bunk. Perhaps Kant was correct when he said that although we can never hope to answer our metaphysical questions, we can't help asking them anyway.

further reading

- [metaphysics](#) - *Catholic Encyclopedia*
- [ontology and metaphysics](#) - the Dictionary of Philosophy of Mind
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- [An Index to Philosophical Terms in Metaphysics](#) from the Ism Book
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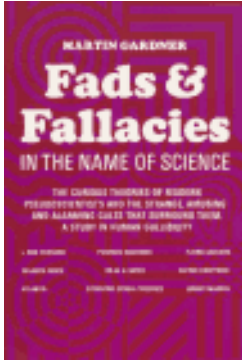
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Akashic record

The Akashic record is an imagined spiritual realm, supposedly holding a record of all events, actions, thoughts and feelings that have ever occurred or will ever occur. Theosophists believe that the Akasha is an "astral light" containing occult records which spiritual beings can perceive by their special "astral senses" and "astral bodies". Clairvoyance, spiritual insight, prophecy and many other untestable metaphysical and religious notions are made possible by tapping into the Akasha.

See **related entries** on [Edgar Cayce](#), [Jeane Dixon](#), [Gordon-Michael Scallion](#), [Nostradamus](#), [theosophy](#) and [Rudolf Steiner](#).

further reading

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[agnosticism](#)



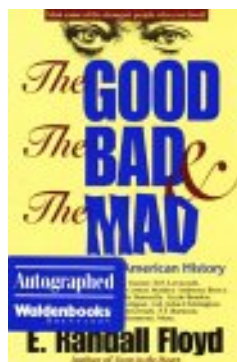
[alchemy](#)

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Edgar Cayce (1877-1945)



Edgar Cayce is known as one of America's greatest psychics. His followers maintain that Cayce was able to tap into some sort of higher consciousness, such as God or the [Akashic record](#), to get his "psychic knowledge." He used this "knowledge" to predict that California will slide into the ocean and that New York City will be destroyed in some sort of cataclysm. He predicted that in 1958 the U.S. would discover some sort of death ray used on [Atlantis](#). Cayce is one of the main people responsible for some of the sillier notions about Atlantis, including the idea that the Atlantaeans had some sort of Great Crystal. Cayce called the Great Crystal the *Tuaoi Stone* and said it was a huge cylindrical prism that was used to gather and focus "energy," allowing the Atlanteans to do all kinds of fantastic things. But they got greedy and stupid, tuned up their Crystal to too high a frequency and set off volcanic disturbances that led to the destruction of that ancient world. He made other predictions concerning such things as the Great Depression (that 1933 would be a good year) and the Lindbergh kidnapping (most of it wrong, all of it useless), and that China would be converted to Christianity by 1968. He also claimed to be able see and read [auras](#), but this power was never tested under controlled conditions. However, Edgar Cayce is best known for being a psychic medical diagnostician and psychic reader of past lives.

Cayce was known as "the sleeping prophet" because he would close his eyes and appear to go into a trance when he did his readings (Stern). At his death, he left thousands of accounts of past life and medical readings. A stenographer took notes during his sessions and some 30,000 transcripts of his readings are under the protection of the [Association for Research and Enlightenment](#). However, Cayce usually worked with an assistant (hypnotist and mail-order osteopath Al Layne; John Blackburn, M.D.; homeopath Wesley Ketchum). According to Dale Beyerstein, "these documents are worthless by themselves" because they provide no way of distinguishing what Cayce discerned by psychic ability from information provided to him by his assistants, by letters from patients, or by simple observation. In short, the only evidence for Cayce's psychic doctoring is useless for testing his psychic powers. Nevertheless, it is the volume and alleged accuracy of his "cures" that seem to provide the main basis for belief in Cayce as a psychic. In fact, however, the support for his accuracy consists of little more than anecdotes and [testimonials](#). There is no way to demonstrate that Cayce used psychic powers even on those cases where there is no dispute that he was instrumental in the cure.

It is true, however, that many people considered themselves cured by Cayce

and that's enough evidence for true believers. It works! The fact that thousands don't consider themselves cured or can't rationalize an erroneous diagnosis won't deter the true believer. Gardner notes that Dr. J.B. Rhine, famous for his ESP experiments at Duke University, was not impressed with Cayce. Rhine felt that a psychic reading done for his daughter didn't fit the facts. Defenders of Cayce claim that if a patient has any doubts about Cayce, the diagnosis won't be a good one. Yet, what reasonable person wouldn't have doubts about such a man, no matter how kind or sincere he was?

Cayce's defenders provide some classic *ad hoc* hypotheses to explain away their hero's failures. For example, Cayce and a famous dowser named Henry Gross set out together to discover buried treasure along the seashore and found nothing. Their defenders suggested that their psychic powers were accurate because either there once was a buried treasure where they looked but it had been dug up earlier, or there would be a treasure buried there sometime in the future (one wonders why their psychic powers didn't discern this).

There are many myths and legends surrounding Cayce: that an angel appeared to him when he was 13 and asked him what his greatest desire was (Cayce allegedly told the angel that his greatest desire was to help people); that he could absorb the contents of a book by putting it under his pillow while he slept; that he passed spelling tests by using [clairvoyance](#); that he was illiterate and uneducated. *The New York Times* is greatly responsible for the illiteracy myth ("Illiterate Man Becomes a Doctor When Hypnotized," (Sunday magazine section, October 9, 1910). Many of the myths were passed on unchecked by Thomas Sugrue, who believed Cayce had cured him of a disabling illness. In his 1945 book *There is a River: The Story of Edgar Cayce*, Sugrue asserts that it was Cayce, not the medical doctors who treated them, that was responsible for the cures of Cayce's son ("blindness") and wife ("tuberculosis").

One of the most common reasons given for believing in the psychic abilities of people such as Cayce is the claim that *there's no way he could have known this stuff by ordinary means*. He must have been told this by God or spirits or have been astrally projected back or forth in space or time, etc. Yet, Cayce's "psychic knowledge" is easily explained by quite ordinary ways of knowing things.

Even though Cayce didn't have a formal education much beyond grammar school, he was a voracious reader, worked in bookstores, and was especially fond of occult and osteopathic literature. ([Osteopathy](#), in his day, was primitive and akin to [naturopathy](#) and folk medicine.) He was in contact with and assisted by people with various medical backgrounds. Even so, many of his readings would probably only make sense to an osteopath of his day. Martin Gardner cites Cayce's reading of Cayce's own wife as an example. The woman was suffering from tuberculosis:

.... from the head, pains along through the body from the second, fifth and sixth dorsals, and from the first and second lumbar...tie-ups here, floating lesions, or lateral lesions, in the muscular and nerve fibers which supply the lower end of the lung and the diaphragm...in conjunction with the sympathetic nerve of the solar plexus, coming in conjunction with the solar plexus at the end of the stomach....

The fact that Cayce mentions the *lung* is taken by his followers as evidence of a correct diagnosis; it counts as a psychic "hit." But what about the incorrect diagnoses: dorsals, lumbar, floating lesions, solar plexus and stomach? Why aren't those counted as diagnostic misses? And why did Cayce recommend osteopathic treatment for people with tuberculosis, epilepsy and cancer?

In addition to osteopathy, Cayce was knowledgeable of [homeopathy](#) and [naturopathy](#). He was the first to recommend laetrile as a cancer cure. (Laetrile contains [cyanide](#) and is known to be ineffective for cancer.) He also recommended "oil of smoke" for a leg sore; "peach-tree poultice" for convulsions; "bedbug juice" for dropsy; and "fumes of apple brandy from a charred keg" for tuberculosis.

See **related entries** on [alternative health practices](#), [Jeane Dixon](#), [Nostradamus](#), and [Gordon-Michael Scallion](#).

further reading

[reader comments](#)

- [Edgar Cayce Resource Center](#)
- [The Edgar Cayce Web Site](#)
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[cattle "mutilations"](#)

[Celestine Prophecy](#) 

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Jeane Dixon & the Jeane Dixon effect

Jeane Dixon (1918-1997) was an [astrologer](#) and alleged [psychic](#) who did not predict the assassination of President Kennedy. She was featured every year in various publications that engage in the entertaining pursuit of making predictions for the new year. Ms. Dixon was never correct in any prediction of any consequence. She predicted that the Soviets would beat the U.S. to the moon, for example, and that World War III would begin in 1958. When that didn't happen, she predicted there would be a cure for cancer in 1967. Most of her predictions were equivocal, vague or mere possibility claims.

Dixon achieved a reputation as a very good psychic, however, when the mass media perpetuated the myth that she had predicted President Kennedy's assassination. In 1956 she predicted in *Parade* magazine that the 1960 election would be won by a Democrat and that he would die in office, "although not necessarily in his first term." However, in 1960, apparently forgetting or overriding her earlier prediction, she predicted unequivocally that "John F. Kennedy would fail to win the presidency." These inconvenient facts were omitted in Ruth Montgomery's 1965 book *A Gift of Prophecy: the Phenomenal Jeane Dixon*. More than 3,000,000 copies of this mythological account of Dixon's psychic prowess were sold with nary a cry of "non-sense" from the mass media.

[Dixon was an FBI stooge](#), who agreed to make claims about [Russia](#) being behind the civil rights movement and [left-wing agitation](#) on college campuses. She was chummy enough with [J. Edgar Hoover](#) that he agreed to serve as an honorary director to Children to Children Inc., a foundation established by Dixon to help sick children.

In her obituary and in its final issue of 1997, *The Sacramento Bee* perpetuated the myth of Jeane Dixon's psychic powers by declaring her to have predicted the assassination of JFK.

The *Jeane Dixon effect* refers to the tendency of the mass media to hype or exaggerate a few correct predictions by a psychic, guaranteeing that they will be remembered, while forgetting or ignoring the much more numerous incorrect predictions.

See related entry on [clairvoyance](#).

further reading

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[the divine fallacy](#)



[the Dogon and Sirius II](#)

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Gordon-Michael Scallion (GMS)

Gordon-Michael Scallion claims to have the "gift of prophecy" like [Nostradamus](#) and [Edgar Cayce](#). Like Cayce, [Atlantis](#) has visited him, and like Nostradamus and Cayce, his head is filled with visions of disasters and apocalypses. In fact, Scallion's head is filled with many of the same visions Cayce claimed to have had. Coincidence? Not likely. He has predicted earthquakes in California and hurricanes in Florida. His doomsday prophecies are very popular with [Art Bell](#), on whose radio show Scallion has been featured several times. His predictions are so wild that his followers seem not to care that his accuracy is on par with [Jeane Dixon's](#). Skeptics might think Scallion is a plagiarist; true believers might think he, Cayce, Dixon, Nostradamus, etc., tapped into the [Akashic record](#).

Scallion is actually a prophetic industry that he calls [The Matrix Institute](#). One of his more popular items for sale is a map of the future Earth as seen by GMS (as he is known by those in the know). On this map--which he claims will be the true map of the world by at least the year 2,002--[California is nothing but a few islands in the Pacific](#) and Denver is where the ocean front property sits. (This is a revision of an earlier prophecy that proved false.) Eventually, says GMS, the United States will restructure itself as thirteen colonies, proving that what goes around comes around.

Scallion claims to have first noticed his gift in 1979 while hospitalized. It was then that he started hearing voices and having cataclysmic visions. Soon after he was healed, he started to believe that he also was given the gift of healing along with the gift of hallucination. He became another Edgar Cayce, doing readings and healings, and giving lectures to all who would listen. Soon he founded his own newsletter, the *Earth Changes Report* (6 issues/\$36 year), to keep track of all his apocalyptic dreams and hallucinations, which began arriving at a furious rate. The visions now began appearing on his computer screen. And since you can subscribe to the on-line version of *Earth Changes*, Scallion's visions can appear on *your* screen should you so desire.

Those living in Palm Springs should know that according to Scallion you were hit with 9.0 earthquake sometime between 1995 and 1997. Sonoma Country (north of San Francisco) was hit by an 8.5 quake during that period, as well. If you didn't feel it, that may be because they didn't occur as predicted by GMS. Nor did the volcanic ash arrive that was supposed to cover the whole planet.

His recent poor track record was predictable, however, since he predicted that California would be in the Pacific Ocean by May of 1993 and Denver was

supposed to be on the Pacific coast by 1998. Also, one-fourth of Alaska is supposed to be gone by now.

No wonder scientists are not rushing to verify his latest vision: El Niño is fueled by underground volcanoes.

further reading

- [Gordon-Michael Scallion: A Summary Of His Most Important Predictions Friday, November 11, 1994](#)
- [Prophecy Gordon-Michael Scallion Selected Predictions For 1995 - 1997](#)
- [Ellie Crystal's page on Scallion](#)
- [Ellie Crystal's Interview with Gordon](#)

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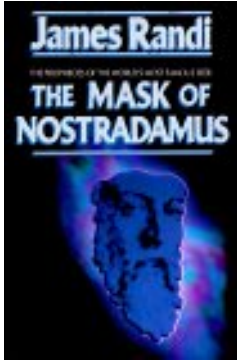


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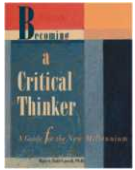
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[James Randi, *The Mask of Nostradamus*](#)



[Becoming
a Critical Thinker](#)
by Robert T. Carroll

Nostradamus (1503-1566)

"D'vn Chef vieillard naiftra fens hebet, Degenerant par f³auoir & par armes."*

("To an old leader will be born an idiot heir, weak both in knowledge and in war.") I. 78.* (Some ungenerous souls think this quatrain refers to two birds named [Bush](#) solely because the younger [Bush](#) has a bit of trouble with the language. Codswallop!)

"The devil can cite Scripture to his purpose...." - Antonio, in the *Merchant of Venice* by W. Shakespeare*



Michel Nostradamus was a 16th century French physician and astrologer. His modern followers see him as a prophet. His prophecies have a magical quality for those who study them: they are muddled and obscure before the predicted event, but become crystal clear after the event has occurred.

Nostradamus wrote four-line verses (quatrains) in groups of 100 (Centuries). Skeptics consider the "prophecies" of Nostradamus to be mainly gibberish. For example:

L'an mil neuf cens nonante neuf sept

mois

**Du ciel viendra grand Roy deffraieur
Resusciter le grand Roy d'Angolmois.
Avant apres Mars regner par bon heur.**

**The year 1999 seven months
From the sky will come the great King of Terror.
To resuscitate the great king of the Mongols. Before and
after Mars reigns by good luck. (X-72)***

(or, according to the [Alta Vista translator](#), appropriately called Babelfish:

The year millet nine taxable quotas ninety nine seven

months

Of the sky will come large Roy deffraior Resusciter large

Roy d' Angolmois.

Before after Mars regner by good hor.)

Nobody, not even the most fanatical of Nostradamus' disciples, had a clue what this passage might have meant before July 1999. However, after John F. Kennedy Jr., his wife Carolyn Bessette and her sister Lauren Bessette, were killed in a plane crash on July 18, 1999, the retroprophets came out of the woodwork. Here is just one example:

Could the crash of John F. Kennedy Jr.'s airplane in July of 1999 fulfill the line "from the sky will come "the great King of Terror"? Could the human fear of death and bodily injury be the intended definition of "the great King of Terror"? It might be possible!

Other disciples were generous enough to think that Nostradamus was referring to a solar eclipse that would occur on August 11th, 1999. Others feared a NASA space probe would come crashing down on earth. The quatrain is imprecise enough to mean dozens of different things, most of which are easily [shoehorned](#) to the "prophecy."

Some claim that Nostradamus predicted the Challenger space shuttle disaster on January 28, 1986. Of course, they didn't recognize that he had predicted it until it was too late. Here is the passage:

**D'humain troupeau neuf seront mis a` part,
De iugement & conseil separez:
Leur sort sera diuise' en depart,
Kappa, Thita, Lambda mors bannis esgarez.**

**From the human flock nine will be sent away,
Separated from judgment and counsel:
Their fate will be sealed on departure
Kappa, Thita, Lambda the banished dead err.**

Thiokol made the defective O-ring that is blamed for the disaster. The name has a 'k', 'th' and an 'l'. What more proof does one need? Never mind that there were seven who died, not nine. The rest is vague enough to fit many different scenarios.

True believers, such as Erika Cheetham (*The Final Prophecies of Nostradamus*, 1989), believe that Nostradamus foresaw the invention of bombs, rockets, submarines, and airplanes. He predicted the Great Fire of London (1666) and the rise of Adolph Hitler and many other wonders.

Skeptics, such as James Randi, cast doubt upon the interpretation of Nostradamus' quatrains.

Here is how Randi and Cheetham read one of the more famous quatrains, allegedly predicting the rise of Adolph Hitler to power in Germany:

*Bestes farouches de faim fleuves tranner
Plus part du champ encore Hister sera
En caige de fer le grand sera traisner
Quand rien enfant de Germain observa.*

Cheetham's version:

**Beasts wild with hunger will cross the rivers,
The greater part of the battle will be against Hitler.
He will cause great men to be dragged in a cage of iron,
When the son of Germany obeys no law.**

Randi's version:

**Beasts mad with hunger will swim across rivers,
Most of the army will be against the Lower Danube.
The great one shall be dragged in an iron cage
When the child brother will observe nothing.**

Neither translation seems to make much sense, but at least Randi's recognizes that 'Hister' refers to a geographical region, not a person. So does 'Germania', by the way; it refers to an ancient region of Europe, north of the Danube and east of the Rhine. It may also refer to a part of the Roman Empire, corresponding to present-day northeastern France and part of Belgium and the Netherlands. Why anyone would think Hister refers to Hitler rather than exclusively to an area of the Danube is a mystery.

September 11, 2001

After the terrorist attacks on the World Trade Center, a rumor was spread that Nostradamus had predicted it. The following quatrains were offered as proof:

**In the year of the new century and nine months,
From the sky will come a great King of Terror...
The sky will burn at forty-five degrees.
Fire approaches the great new city..."**

**In the city of York there will be a great collapse,
2 twin brothers torn apart by chaos
while the fortress falls the great leader will succumb
third big war will begin when the big city is burning.**

These alleged quatrains are [hoaxes](#). The first two lines seem to be an alteration of Centuries X quatrain 72:

**L'an mil neuf cens nonante neuf sept mois
Du ciel viendra vn grand Roy d'effrayeur**

or, in English

**The year 1999 seven months
From the sky will come the great King of Terror.***

There is no reference in Nostradamus to "the new century and nine months."

The next two lines are from Centuries VI, quatrain 97.

**Cinq & quarante degrez ciel bruslera,
Feu approcher de la grand cité neuue,**

**At forty-five degrees the sky will burn,
Fire to approach the great new city:**

Some rumormongers speculated that this refers to the latitude of New York, but the [latitude](#) in Central Park is 40° 47' N. Any but the dimmest bulb should be able to [shoehorn](#) "at 45 degrees the sky will burn." The remainder of VI.97 is

**Instant grand flamme espars sautera,
Quand on voudra des Normans faire preuue,**

**In an instant a great scattered flame will leap up,
When one will want to demand proof of the Normans.**

The only thing in these lines that is even vaguely close to what happened is the mention of "a great scattered flame." But again, even the dimmest of bulbs should be able to find some way to connect [Normans giving proof](#) with what happened.

The only thing more disgusting than these hoaxes are the psychics such as [Silvia Brown](#), [Patricia Lane](#), etc. who claim *after the fact* that they predicted the attacks. Brown even had the chutzpah to claim she couldn't tell us the details in advance because she's not "omniscient." One does not need to be psychic to know that.

According to David Emery, one of the hoaxed versions was written a few years ago by a student named [Neil Marshall](#) "to demonstrate...that the

writings of Nostradamus are so cryptic that they can be interpreted to mean almost anything." (See also [Barbara and David P. Mikkelson's Urban Legends page](#).) If we have some imagination we can [shoehorn](#) just about any any event to some passage in Nostradamus (or [Bob Dylan](#), for that matter).

Finally, there is a video program out known as "Nostradamus: Prophet of Doom." It is a highly uncritical and misleading presentation, mainly rehashing Cheetham's views, and has been broadcast by A & E television network in their biography series--a lowlight in an otherwise fairly informative series. James Randi, who has written a critical and skeptical book on the Nostradamus phenomenon, was interviewed for the program, but he claims his views were twisted or ignored. Says Randi

I now know what validity I will assign to anything the "Biography" program presents to me in the future, and I hope that my readers will, too. The lack of respect for truth and for the education of the viewers that was demonstrated by the show's producers, Craig Haffner, Donna Lusitana, and Scott Paddor, will not in the least trouble them; the money is already in the bank, and they just don't care.

Yet, how interesting would a program be that ran through a thousand quatrains, most of which are ludicrously obscure, and showed how each of them either made no sense or could be greatly stretched to fit events that had already occurred? The few "predictions" that seem precise are easily accounted for by [coincidence](#) and laws of chance. Any rigorous appraisal of this non-sense would be met with low ratings. Thus, don't look for such a program to occur in this millennium. And certainly don't look for a program that agrees with [Jean-Claude Pecker](#) of the [Collège de France](#) in Paris. He maintains that Nostradamus described not *future* events but events of his own and earlier times. According to Pecker, Nostradamus disguised "them in a sort of coded French" because "in his troubled period" he was "under constant threat." (See page 81 of the September/October 2001 issue of the *Skeptical Inquirer*.)

One thing Nostradamus didn't predict was that he would become a one-man industry in the 20th century. Publishing houses will never go broke printing non-sense claiming to be the latest predictions culled from the manuscripts of Nostradamus.

See related entries on [The Bible Code](#), [clairvoyance](#), [confirmation bias](#), [Edgar Cayce](#) [Jean Dixon](#), [the law of truly large numbers](#), [retroactive clairvoyance](#), and [shoehorning](#).

further reading**reader comments**

- [Centuries in original, modern French, and English](#)
- [Nostradamiana](#) - quatrains in French & English
- [Nostradamus FAQ](#)
- [Hitchhiker's Guide to Nostradamus](#)
- [Nostradamus: Links](#)
- [The Nostradamus Society of America](#)
- [Did Nostradamus predict the day his tomb would be discovered?](#) The Straight Dope by Cecil Adams
- [Frauds & Hoaxes](#)

[Diaconis, Persi and Frederick Mosteller, "Coincidences," in *The Encyclopedia of the Paranormal*, ed. G. Stein \(Amherst, N.Y.: Prometheus Books, 1996\).](#)

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[nocebo](#)



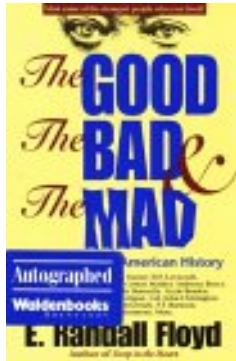
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theosophy

"We assert that the divine spark in man being one and identical in its essence with the Universal Spirit, our "spiritual Self" is practically omniscient, but that it cannot manifest its knowledge owing to the impediments of matter. Now the more these impediments are removed, in other words, the more the physical body is paralyzed, as to its own independent activity and consciousness, as in deep sleep or deep trance, or, again, in illness, the more fully can the inner Self manifest on this plane. This is our explanation of those truly wonderful phenomena of a higher order, in which undeniable intelligence and knowledge are exhibited. " [Madame Blavatsky]

"...we are imprisoned in the body, like an oyster in his shell." [The Socrates of Plato, [Phaedrus](#)]

To the philosopher, the body is "a disturbing element, hindering the soul from the acquisition of knowledge..."

"...what is purification but...the release of the soul from the chains of the body?" The Socrates of [Plato, [Phaedo](#)]

Theosophy, or *divine wisdom*, refers either to the *mysticism* of philosophers who believe that they can understand the nature of God by direct apprehension, without revelation, or it refers to the *esotericism* of eclectic collectors of mystical and occult philosophies who claim to be handing down the great secrets of some ancient wisdom.

Theosophical mysticism is indebted to [Plato](#) (c. 427-347 BCE), [Plotinus](#) (204/5-270) and other [neo-Platonists](#), and [Jakob Boehme](#) (1575-1624), among others. It experienced its last great Western philosophical burst in 19th century [German Idealism](#). The mystical tradition continues to be a strong element in many non-Western philosophies, such as Indian philosophy.

Theosophic esotericism begins with [Helena Petrovna Blavatsky \(1831-1891\)](#) usually known as Madame Blavatsky, one of the co-founders of the Theosophical Society in New York in 1875. The esoteric theosophical tradition of Blavatsky is indebted to several philosophical and religious traditions: [Zoroastrianism](#), [Hinduism](#), [Gnosticism](#), [Manichaeism](#), the [Cabala](#), among others.

Her harshest critics consider Madame Blavatsky to be "one of most accomplished, ingenious, and interesting impostors in history." Her devoted followers consider her to be a saint and a genius. [They claim she discovered the true nature of light either by [clairvoyance](#) or intuition alone, without any need for scientific training or communication with other scientists.] Since these characteristics are not contradictory, it is possible she was both a fraud and a saintly genius. Much of what is believed about Blavatsky originates with Madame herself, her devoted followers or her enemies. Nevertheless, a few things seem less dubious than others. She seems clearly to have been widely traveled and widely read. Blavatsky claims she spent several years in Tibet and India being initiated into occult mysteries by various "masters" (*mahatmas* or *adepts*) especially the Masters Morya and Koot Hoomi, who had "astral" bodies. These Adepts were said to dwell in the Himalayas, Egypt, Tibet and other exotic places. They are known for their extraordinary psychic powers and are the sacred keepers of some mysterious "Ancient Wisdom". They are not divine, she said, but more highly evolved than the rest of us mere mortals. (Evolution, according to Blavatsky, is a spiritual process.) Their goal is to unite all humanity in a Great White Brotherhood, despite the fact that they dwell in the remotest regions of the world and apparently have as little contact with the rest of us as possible.

Blavatsky's deceptions

Blavatsky seems clearly to have had an overpowering personality. She was knowledgeable of the tricks of [spiritualists](#), having worked for one in Egypt, and in the early days of the Theosophical Society seems clearly to have used trickery to deceive others into thinking she had paranormal powers. She most certainly faked the materialization of a tea cup and saucer, as well as written messages from her Masters, presumably to enhance her credibility. She certainly claimed to have paranormal experiences, but whether she really believed she was clairvoyant or possessed psychic powers, I can't say.

In 1875 she founded the Theosophical Society in New York City in collaboration with Henry Steele Olcott, a lawyer and writer, and W. Q. Judge. She met Olcott in 1874 while he was investigating the spiritualism of the Eddy brothers in Vermont. They continued to meet with other like-minded seekers and together founded their society. A few years later, she and Olcott went to India together and established [Theosophical headquarters](#) there. She left under a cloud of suspicion in 1885, having been accused of faking materializations of teachings from her Masters. Back in Europe in 1888 she published her major work *The Secret Doctrine*. The book "is an attempt...to reconcile science, the Ancient Wisdom, and human culture through...cosmology, history, religion, and symbolism." (Ellwood) [According to Blavatsky herself](#), "The chief aim of the...Theosophical Society [was] to reconcile all religions, sects and nations under a common system of ethics, based on eternal verities."

She did not reject religions such as Christianity and Hinduism, but claimed that all religions have an exoteric and an esoteric tradition. The exoteric traditions are unique and distinct for each religion. The esoteric doctrine is the same for all. She claimed to be passing on the wisdom of the shared esoteric doctrines. And even though she had an early association with spiritualism, she eventually claimed that "the spirits of the dead cannot return to earth -- save in rare and exceptional cases...."

One might wonder why, if Theosophy is so ancient and universal, it was so unknown until 1875. Madame had an answer. This was due to "willing ignorance". We humans have lost "real spiritual insight" because we are too devoted to "things of sense" and have for too long been slaves "to the dead letter of dogma and ritualism." "But the strongest reason for it," she said, "lies in the fact that real Theosophy has ever been kept secret." There were several reasons why it was kept secret. "...Firstly, the perversity of average human nature and its selfishness, always tending to the gratification of personal desires to the detriment of neighbours and next of kin. Such people could never be entrusted with divine secrets. Secondly, their unreliability to keep the sacred and divine knowledge from desecration. It is the latter that led to the perversion of the most sublime truths and symbols, and to the gradual transformation of things spiritual into anthropomorphic, concrete, and gross imagery -- in other words, to the dwarfing of the god-idea and to idolatry." [[The Key to Theosophy](#)] One wonders, what in the world was any different in the late 19th century? If at that time humans were any less perverse, selfish, materialistic, profane, etc., than they had ever been, this should come as a great shock to all social historians.

Ancient wisdom

What was this "Ancient Wisdom" which the theosophists promised to share? It is truly an eclectic compilation of Hindu, Egyptian, Gnostic and other exotic scriptures and teachings, neo-Platonism, and stories like the [Atlantis](#) myth. These are philosophies and stories for those who shake and quiver at the sound of such words as *secret, special, spiritual, enlightenment, transformation, esoteric, occult, divine, ancient wisdom, cosmic, vision, dynamics, golden, Isis, mysteries* and *masters*. They promise escape from the evils of the world, especially the body, while providing an explanation for Evil. They claim to know that the reason spiritual progress is so slow in coming is because of all this horrible stuff in the universe called "matter." They promise the power of divinity while providing an explanation for miracles which takes them out of the realm of the supernatural and puts the believer into the center of the spiritual universe. They promise union with some great moral purpose while offering membership in an isolated society of very special beings. But, probably the biggest attraction to joining such an esoteric society is that you don't have to go to college and you don't have to read Kant.

What you do need, though, is a penchant for the occult. This is dangerous stuff, according to Blavatsky, but theosophy can help.

When ignorant of the true meaning of the esoteric divine symbols of nature, man is apt to miscalculate the powers of his soul, and, instead of communing spiritually and mentally with the higher, celestial beings, the good spirits (the gods of the theurgists of the Platonic school), he will unconsciously call forth the evil, dark powers which lurk around humanity -- the undying, grim creations of human crimes and vices -- and thus fall from theurgia (white magic) into goetia (or black magic, sorcery). [*What Is Theosophy?*]

According to Madame, "...no one can be a true Occultist without being a real Theosophist; otherwise he is simply a black magician, whether conscious or unconscious." She even thought that [mesmerism](#) and [hypnotism](#) were occult arts.

Occult sciences are not, as described in Encyclopaedias, "those imaginary sciences of the Middle Ages which related to the supposed action or influence of Occult qualities or supernatural powers, as alchemy, magic, necromancy, and astrology," for they are real, actual, and very dangerous sciences. They teach the secret potency of things in Nature, developing and cultivating the hidden powers "latent in man," thus giving him tremendous advantages over more ignorant mortals. Hypnotism, now become so common and a subject of serious scientific inquiry, is a good instance in point. Hypnotic power has been discovered almost by accident, the way to it having been prepared by mesmerism; and now an able hypnotizer can do almost anything with it, from forcing a man, unconsciously to himself, to play the fool, to making him commit a crime -- often by proxy for the hypnotizer, and for the benefit of the latter. Is not this a terrible power if left in the hands of unscrupulous persons? And please to remember that this is only one of the minor branches of Occultism. [*The Key to Theosophy*]

Blavatsky may have understood the secret of the divine essence, but I don't think she understood the nature of hypnosis or mesmerism. However, I believe she was right when she claimed that "...the ecstatic trance of mystics and of the modern mesmerists and spiritualists, are identical in nature, though various as to manifestation." [*What Is Theosophy?*] I believe that none of these so-called "trance" states is a unique state of consciousness, though they are states of mind, states governed by social role-playing rules, a position argued for by many contemporary psychologists including [Nicholas P.](#)

[Spanos.](#)

Where are the plaudits?

The reader may wonder why theosophy isn't universally recognized as the salvation of mankind. For some it may have been the messenger which kept them away. Many people are not likely to take seriously a Russian noblewoman who claimed to have had childhood visions of a tall Hindu who eventually materialized in Hyde Park and became her guru and advisor. Many skeptics scoff at her noble origins and subsequent employment as a circus performer and séance assistant, plus we take seriously the charges of deception for whatever noble motive. For others, it may be the doctrines which keep us away. Despite the stated moral goals, and the desire for peace on earth and good will toward men and women, there is the small problem of astral bodies, evolution of spiritual races, Aryans, paranormal powers, Atlantis, the so-called Ancient Wisdom, etc. To some this may seem better than the Incarnation, [transubstantiation](#) and the Trinity, but to skeptics this is just more metaphysical [codswallop](#). Finally, others may be repelled by the self-discipline required of theosophy.

...the foremost rule of all is the entire renunciation of one's personality -- i. e., a pledged member has to become a thorough altruist, never to think of himself, and to forget his own vanity and pride in the thought of the good of his fellow-creatures, besides that of his fellow-brothers in the esoteric circle. He has to live, if the esoteric instructions shall profit him, a life of abstinence in everything, of self-denial and strict morality, doing his duty by all men.

"...every member must be either a philanthropist, or a scholar, a searcher into Aryan and other old literature, or a psychic student." (*The Key to Theosophy*)

It is not an easy life, pursuing the path of the mahatmas and the Ancient Wisdom, striving to unite all humankind into a Great Brotherhood of spiritually evolved beings with secret knowledge of such great vacation spots for astrals as Atlantis. Plus, perhaps there were inconsistencies or inadequacies in the secret doctrines, as the group seemed to splinter and dissipate after the death of Madame. Her dream of a Brotherhood of Man remains a dream, although there are Theosophical societies [all over the world](#).

See related entries on the [Akashic record](#), [spiritualism](#) and [Rudolph Steiner](#).

further reading

- [Blavatsky Net](#)
- ["What Is Theosophy?"](#) by H. P. Blavatsky
- [Theosophy entry in the Internet Encyclopedia of Philosophy](#)
- [Traditional Zoroastrianism](#)
- [Stanford University Zoroastrian Group](#) lots of links
- [The Six Enneads](#) of Plotinus
- [Jacob Boehme Resources](#)
- [The Gnosis Archive](#)
- [Modern Gnosticism](#)

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[Washington, Peter. *Madame Blavatsky's Baboon: A History of the Mystics, Mediums, and Misfits Who Brought Spiritualism to America* \(Schocken Books, 1996\). \[review by a theosophist\]\(#\)](#)

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[therapeutic touch](#) 

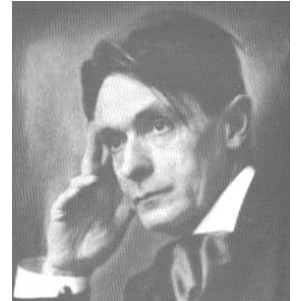
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anthroposophy, Rudolf Steiner and Waldorf Schools

The Austrian-born Rudolf Steiner (1861-1925) was the head of the German [Theosophical](#) Society from 1902 until 1912, at which time he broke away and formed his *Anthroposophical* Society. He may have abandoned the *divine* wisdom for *human* wisdom, but one of his main motives for leaving the theosophists was that they did not treat Jesus or Christianity as special. Steiner had no problem, however, in accepting such Hindu notions as [karma](#) and [reincarnation](#). By 1922 Steiner had established what he called the Christian Community, with its own liturgy and rituals for Anthroposophists. Both the Anthroposophical Society and the Christian Community still exist, though they are separate entities.



It wasn't until Steiner was nearly forty and the 19th century was about to end that he became deeply interested in the occult. Steiner was a true polymath, with interests in agriculture, architecture, art, chemistry, drama, literature, math, medicine, philosophy, physics, and religion, among other subjects. His doctoral dissertation at the University of Rostock was on [Fichte's](#) theory of knowledge. He was [the author of many books and lectures](#), many with titles like *The Philosophy of Spiritual Activity* (1894), *Occult Science: An Outline* (1913), *Investigations in Occultism* (1920), and *How to Know Higher Worlds* (1904). He was also much attracted to Goethe's mystical ideas and worked as an editor of Goethe's works for several years. Much of what Steiner wrote seems like a rehash of Hegel. He thought Marx had it wrong, that it really is the spiritual that drives history. Steiner even speaks of the tension between the search for community and the experience of individuality, which, he believed, are not really contradictions but represent polarities rooted in human nature.

His interests were wide and many but by the turn of the century his main interests were esoteric, mystical, and occult. Steiner was especially attracted to two theosophical notions: (1) There is a special spiritual consciousness that provides direct access to higher spiritual truths; (2) Spiritual evolution is hindered by being mired in the material world.

Steiner may have broken away from the Theosophical Society, but he did not abandon the eclectic mysticism of the theosophists. Steiner thought of his Anthroposophy as a "spiritual science." Convinced that reality is essentially spiritual, he wanted to train people to overcome the material world and learn to comprehend the spiritual world by the higher, spiritual self. He taught that there is a kind of spiritual perception that works independently of the body

and the bodily senses. Apparently, it was this special spiritual sense that provided him with information about the occult.

According to Steiner, people existed on Earth since the creation of the planet. Humans, he taught, began as spirit forms and progressed through various stages to reach today's form. Humanity, Steiner said, is currently living in the Post-Atlantis Period, which began with the gradual sinking of [Atlantis](#) in 7227 BC ... The Post-Atlantis Period is divided into seven epochs, the current one being the European-American Epoch, which will last until the year 3573. After that, humans will regain the clairvoyant powers they allegedly possessed prior to the time of the ancient Greeks ([Boston](#)).

Steiner's most lasting and significant influence, however, has been in the field of education. In 1913 at Dornach, near Basel, Switzerland, Steiner built his Goetheanum, a "school of spiritual science." This would be a forerunner of the Steiner or Waldorf schools. The term "Waldorf" comes from the school Steiner was asked to open for the children of workers at the Waldorf-Astoria cigarette factory in Stuttgart, Germany, in 1919. The owner of the factory had invited Steiner to give a series of lectures to his factory workers and apparently was so impressed he asked Steiner to set up the school. The first U.S. Waldorf school opened in New York City in 1928. Today, the Steinerians claim that there are more than 600 Waldorf schools in over 32 countries with approximately 120,000 students. About 125 Waldorf schools are said to be currently operating in North America. There is even a non-accredited [Rudolf Steiner College](#) offering degrees in Anthroposophical Studies and Waldorf Education.

Steiner designed the curriculum of his schools around notions that he apparently got by special spiritual insight into the nature of Nature and the nature of children. He believed we are each comprised of body, spirit, and soul. He believed that children pass through three seven-year stages and that education should be appropriate to the spirit for each stage. Birth to age 7, he claimed, is a period for the spirit to adjust to being in the material world. At this stage, children best learn through imitation. Academic content is held to a minimum during these years. Children are told fairy tales, but do no reading until about the second grade. They learn about the alphabet and writing in first grade.

According to Steiner, the second stage of growth is characterized by imagination and fantasy. Children learn best from ages 7 to 14 by acceptance and emulation of authority. The children have a single teacher during this period and the school becomes a "family" with the teacher as the authoritative "parent".

The third stage, from 14 to 21, is when the [astral body](#) is drawn into the physical body, causing puberty. These anthroposophical ideas are not part of the standard Waldorf school curriculum, but apparently are believed by those in charge of the curriculum. Waldorf schools leave religious training to parents, but they tend to be spiritually oriented and are based on a generally Christian perspective.

Even so, because they are not taught fundamentalist Christianity from the Bible, Waldorf schools are often attacked for encouraging [paganism](#) or even [Satanism](#). This may be because they emphasize the relation of human beings to Nature and natural rhythms, including an emphasis on festivals, myths, ancient cultures, and various non-Christian celebrations. (The Sacramento Unified School District abandoned its plan to turn Oak Ridge Elementary into a Waldorf magnet school after many of the parents complained about it and at least one teacher complained of Satanism. The school district put the Waldorf program in a new location and is now being [sued in federal court](#) for violation of separation of church and state by [PLANS, Inc.](#), a group of Waldorf School Critics.)

Some of the ideas of the Waldorf School are not Steiner's but are in tune with the master's spiritual insights. For example, television viewing is discouraged because of its typical content and because it discourages the growth of the imagination. This idea is undoubtedly attractive to some parents, since it is very difficult to find anything of positive value for young children on television. I agree that when children are very young they should be socializing, speaking, listening, and interacting with nature and people, not sitting in a catatonic trance before the boob tube. I don't know what the Waldorf teachers think of video games, but I would be very surprised if they didn't discourage them for their dehumanizing depictions of violent behavior as well as for their stifling of the imagination.

Waldorf schools also discourage computer use by young children. I agree that the benefits of computer use by children has yet to be demonstrated, though it seems to be widely believed and accepted by educators who spend billions each year on the latest computer equipment for students who often can barely read or think critically, and who have minimal social and oral skills. Waldorf schools, on the other hand, may be as daffy over the arts as public schools are over technology. What the public school consider frills, Waldorf schools consider essential, e.g., weaving, knitting, playing a musical instrument, woodcarving, and painting.

One of the more unusual parts of the curriculum involves something Steiner called "eurythmy," an art of movement that tries to make visible what he believed were the inner forms and gestures of language and music. According to the Waldorf [FAQ](#), "it often puzzles parents new to Waldorf education, [but] children respond to its simple rhythms and exercises which help them strengthen and harmonize their body and their life forces; later, the older

students work out elaborate eurythmic representations of poetry, drama and music, thereby gaining a deeper perception of the compositions and writings. Eurythmy enhances coordination and strengthens the ability to listen. When children experience themselves like an orchestra and have to keep a clear relationship in space with each other, a social strengthening also results."

Perhaps the most interesting consequence of Steiner's spiritual views was his attempt to instruct the mentally and physically handicapped. Steiner believed that it is the *spirit* that comprehends knowledge and the spirit is the same in all of us, regardless of our mental or physical differences.

Most critics of Steiner find him to have been a truly remarkable man, most decent and admirable. Unlike many other "spiritual" gurus, Steiner seems to have been a truly moral man who didn't try to seduce his followers and who remained faithful to his wife. His moral stature has been challenged by charges of [racism](#), however. Steiner believed in reincarnation and that souls pass through stages, including racial stages, with African races being lower than Asian races and European races being the highest form.* Defenders of Steiner refer to such writings as his *Philosophy of Freedom*, where one finds vague and seemingly contradictory passages like the following:

A racial group is a totality and all the people belonging to it bear the characteristic features that are inherent in the nature of the group. How the single member is constituted, and how he will behave, are determined by the character of the racial group. Therefore the physiognomy and conduct of the individual have something generic about them. If we ask why some particular thing about a man is like this or like that, we are referred back from the individual to the genus. The genus explains why something in the individual appears in the form we observe.

Man, however, makes himself free from what is generic. For the generic features of the human race, when rightly understood, do not restrict man's freedom, and should not artificially be made to do so. A man develops qualities and activities of his own, and the basis for these we can seek only in the man himself. What is generic in him serves only as a medium in which to express his own individual being. He uses as a foundation the characteristics that nature has given him, and to these he gives a form appropriate to his own being. If we seek in the generic laws the reasons for an expression of this being, we seek in vain.*

There is no question that Steiner made contributions in many fields, but as a philosopher, scientist, and artist he rarely rises above mediocrity and is singularly unoriginal. His spiritual ideas seem less than credible and are certainly not scientific. Some of his ideas on education, however, are worth

considering. He was correct to note that there is a grave danger in developing the imagination and understanding of young people if schools are dependent upon government. State-funded education will likely lead to emphasis on a curriculum that serves the State, i.e., one mainly driven by economic and social policies. Education is driven not by the needs of children, but by the economic needs of society. The competition that drives most of public education may benefit society, but it probably does not benefit most individuals. An education where cooperation and love, rather than competition and resentment, mark the essential relationship among students might be more beneficial to the students' intellectual, moral, and creative well-being.

Steiner was also ahead of his time in understanding sexism.

The social position of women is for the most part such an unworthy one because in so many respects it is determined not as it should be by the particular characteristics of the individual woman, but by the general picture one has of woman's natural tasks and needs. A man's activity in life is governed by his individual capacities and inclinations, whereas a woman's is supposed to be determined solely by the mere fact that she is a woman. She is supposed to be a slave to what is generic, to womanhood in general. As long as men continue to debate whether a woman is suited to this or that profession "according to her natural disposition," the so-called woman's question cannot advance beyond its most elementary stage. What a woman, within her natural limitations, wants to become had better be left to the woman herself to decide.*

On the other hand, it is likely that some of anthroposophy's weirder notions about astral bodies, [Atlantis](#), [Aryans](#), [Lemurians](#), etc., will get passed on in a Waldorf education, even if Steiner's philosophical theories are not part of the curriculum for children. Is it that hard to defend love and cooperation without having to ground them in some cosmic mist? Why does one have to leap into the realm of murky mysticism in order to defend criticizing the harm done to the individual by a life spent in pursuit of material possessions with little concern for what is being done to other human beings or to the planet? Why does one have to blame lack of spirituality for the evil around us? One might as well blame too much spirituality for our problems: The spiritual people think so little of this material world that they don't do enough to make it a better place. Why can't people tell stories, dance and sing, play music, create works of art, *and* study chemistry, biology, and physics? Why can't we study the natural world without the process being seen either as a means to job security and material wealth or as harmonizing one's soul with cosmic spirituality?

Children should not be burdened with either spirituality or materialism. They

should be loved and be taught to love. They should be allowed to grow in an atmosphere of cooperation. They should be introduced to the best we have to offer in nature, art, and science in such a way that they do not have to connect everything either to their souls or to their future jobs. Unfortunately, most children have parents and their parents would not stand for such an education.

See related entry on [Madame Blavatsky and theosophy](#).

further reading

[reader comments](#)

- [Anthroposophical Medicine](#) William T. Jarvis, Ph.D.
- [PLANS: People for Legal and Nonsectarian Schools](#) -educating the public about Waldorf Education
- [Anthroposophy: Rudolf Steiner's 'Spiritual Science'](#) by Rob Boston
- [Is Anthroposophy Science?](#) by Sven Ove Hansson
- [The Rudolf Steiner Archive](#)
- [Henry Barnes on Waldorf Education](#)
- [Steiner and Gardening, i.e., Biodynamics?](#)
- [Sympathetic Vibratory Physics](#)
- [New Myths About Rudolf Steiner](#) by Peter Normann Waage
- [The Janus Face of Anthroposophy Peter Zegers and Peter Staudenmaier Reply to Peter Normann Waage, New Myths About Rudolf Steiner](#)
- [Anthroposophy and Ecofascism](#) by Peter Staudenmaier

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[MacKay,
Charles.](#)

[Extraordinary
Popular Delusions
and the Madness of
Crowds \(Templeton
Foundation Press,
2000\) first published
in 1841](#)

alchemy

Alchemy is an occult art and [pseudoscience](#). Its practitioners' main goals have been

1. to turn base metals (like lead or copper) into precious metals (like gold or silver) (the transmutation motif);
2. to create an elixir or potion or metal which could cure all ills (the medical motif), and
3. discover an elixir which would lead to immortality (the transcendence motif).

The magical substance that was to transmute metals, to be the universal panacea and to serve as the key to immortality was called the [philosopher's stone](#).

Alchemy is based on the belief that there are four basic elements--fire, air, earth and water--and three essentials: salt, sulfur and mercury. Great symbolic and metaphysical systems have been built from these seven pillars of alchemy. Ancient Chinese and Egyptian occult literature are said to be the foundation upon which alchemy is based. Alchemy was very popular in medieval Europe where one of the most sacred books of the alchemists was allegedly written by the Egyptian god Thoth, known as [Hermes Trismegistus](#) (Hermes, the thrice-great, was the Greek god who served as a messenger and delivered the souls of the dead to Hades.) In 1455, a manuscript entitled Corpus Hermeticum began circulating in Florence, Italy. It was allegedly a compilation of the alchemical, astrological and magical knowledge of the Egyptian god. However, it is now known that the work was of European origin and dates from somewhat after the time Thoth prospered. The work is full of magic spells and incantations and other useless occult notions.

Today, the transmutation motif is largely ignored, while the transcendence and medical motifs are still going strong in areas such as [homeopathy](#) and [aromatherapy](#). Many modern alchemists combine their occult art with [astrology](#), [acupuncture](#), [hypnosis](#) and a wide variety of New Age spiritual quests. Unlike modern chemistry, which grew out of alchemy, the ancient art is heavily spiritual. Alchemists may have been the first ones to try out their ideas by devising experiments, but because of their intensely metaphysical purposes and beliefs, alchemists did not develop modern scientific methods. Alchemy never separated itself from the supernatural, the [magickal](#) and the superstitious. Perhaps that is why it is still popular, even though it has accomplished practically nothing of lasting value. Alchemists never transmuted metals, never found a panacea, and never discovered the fountain

of youth.

Some alchemists did make contributions to the advancement of knowledge, however. For example, [Paracelsus](#) (1493-1541) introduced the concept of disease to medicine. He rejected the notion that disease is a matter of imbalance or disharmony in the body, even though this view is favored by modern alchemists. Instead, Paracelsus maintained that disease is caused by agents outside of the body which attack it. He recommended various chemicals to fight disease.

Alchemy continues to prosper among the anti-scientific. [Robin Murphy](#), for example, has joined alchemy with [homeopathy](#), [qigong](#) and [astrology](#) to create his own brand of [alternative medicine](#). The Alchemical Institute advertises [Alchemical Hypnotherapy](#) for those seeking a New Age empowerment therapy based on occult pseudoscience. Alchemist [John Reid](#) promises health and success in the search for the QUINTESSENCE! It should be noted that science as we know it was able to develop only when the search for [essences](#) and the quintessence of things was abandoned.

further reading

[reader comments](#)

- [The Alchemy Web site](#)
- [Alchemy Forum archives](#)

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 [The Philadelphia
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the philosopher's stone

The philosopher's stone is the magical substance in [alchemy](#) that can turn base metals into gold, cure all ills and ailments, and allow its possessor to achieve immortality. Unfortunately, like many wonderful things dreamed up by the alchemists, this substance exists only in the imagination.

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[phrenology](#) 

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[Three-month ban for homeopathy GP](#)



[Bad](#)

[Medicine: Misconceptions and Misuses Revealed, from Distance Healing to Vitamin O by Christopher Wanjek](#)



homeopathy

"Unless the laws of chemistry have gone awry, most homeopathic remedies are too diluted to have any physiological effect...."

---*Consumer Reports* (January 1987)

"If the FDA required homeopathic remedies to be proved effective in order to remain on the market, homeopathy would face extinction in the United States."

---**Stephen Barrett, M.D.**

"How do homeopaths explain this supposed potency of infinitesimal doses, even when the dilution removes all molecules of a drug? They invoke mysterious vibrations, resonance, force fields, or radiation totally unknown to science."

--- **Martin Gardner**

Homeopathy is a system of medical treatment based on the use of minute quantities of remedies that in massive doses produce effects similar to those of the disease being treated. The term is derived from two Greek words: *homeo* (similar) and *pathos* (suffering). The 19th century German physician, [Samuel Hahnemann](#) (1755-1843), is considered the father of homeopathy, allegedly being inspired to the notion that *like cures like* from the treatment of malaria with cinchona bark. The bark contains quinine, which helps in the treatment of malaria but also causes fevers. Advocates of homeopathy think that concoctions with as little as one molecule per million can stimulate the "body's healing mechanism." Critics maintain that such minute doses are unlikely to have any significant effect on the body.

Homeopathy is very popular in Europe, especially among the Royal Family of Britain. It is also very popular in [India](#), where there are more than 100 schools of homeopathy.

Homeopaths tend to believe in such things as "vital forces" being in harmony (health) or out of harmony (disease). And they tend to advocate [holistic medicine](#), treating "vital forces," "spirits," "minds", etc., as well as the body. Homeopaths like to say that they treat "persons" not "bodies" or "diseases."

One criticism of homeopathy is that it takes the "cookie cutter" approach to treatment: one-size-fits-all. No matter what ails you, treatment with a diluted like agent is the cure. Experience teaches otherwise. For example, the treatment for scurvy is not more scurvy but vitamin C; the treatment for diabetes is not sugar, but insulin. There seem to be countless examples one could come up with which would contraindicate homeopathy as a reasonable approach to the treatment of disease. Thus, simply because it is *sometimes*

reasonable to treat like with like (e.g., polio vaccines), it does not follow that it is *always* reasonable to treat like with like. It is misleading, however, to compare the use of vaccines in medicine to homeopathic remedies; for, medical vaccines would be ineffective if they were as diluted as homeopathic remedies.

One of the stranger tenets of homeopathy, proposed by Dr. Hahnemann himself, is that the potency of a remedy *increases* as the drug becomes more and more dilute. Some drugs are diluted so many times that they don't contain any molecules of the substance that was initially diluted, yet homeopaths claim that these are their most potent medications! It is not surprising to find that there is no explanation as to how this happens or is even possible, though some homeopaths have speculated that the water used to dilute a remedy has a "memory" of the initial substance.

Homeopathy's supporters point to clinical trials which indicate a homeopathic efficacy that cannot be explained by the placebo effect. Critics contend that such studies are poorly designed, methodologically biased, statistically flawed, etc. The known laws of physics and chemistry would have to be completely revamped if a tonic from which every molecule of the "active" ingredient were removed could be shown to nevertheless to be effective.

Homeopathic advocates give ardent testimonials to the curative powers of their remedies. How can so many case histories be dismissed? Easily: the "cures" are probably the result of (a) misdiagnosis (the patient wasn't cured since the disease it "cured" wasn't present); (b) spontaneous remission (the body healed itself) or (c) the [placebo effect](#). The many [testimonials](#) given as proof that homeopathy "works" are of little value as empirical evidence for the effectiveness of homeopathic remedies. Even so, such "cures" are not meaningless. Left alone, the body often heals itself. And, unlike conventional medicine with its powerful drugs and antibiotics, the likelihood of an adverse reaction to a homeopathic remedy is remote. The main harm from homeopathy is not likely to come from its remedies, which are probably safe but ineffective. One potential danger is in the encouragement to self-diagnosis and treatment. Another is not getting proper treatment by a conventional medical doctor in those cases where the patient could be helped by such treatment, such as for a bladder or yeast infection, or for cancer.

In short, the main benefits of homeopathy seem to be that its remedies are not likely to cause harm in themselves, and they are generally inexpensive. The main drawbacks seem to be that its remedies are most likely inert and they require acceptance of metaphysical baggage incapable of scientific analysis. Homeopathy "works", just as [astrology](#), [biorhythms](#), [chiropractic](#) or conventional medicine, for that matter, "work": i.e., it has its satisfied customers. Homeopathy does not work, however, in the sense of explaining pathologies or their cures in a way which not only conforms with known facts but which promises to lead us to a greater understanding of the nature of

health and disease.

Homeopathy is said to be \$200 million a year industry in the United States. Donald Driscoll, an attorney in Northern California, and Dr. Wallace Sampson, a cancer doctor, want to reduce that amount to zero. They are suing the manufacturers and distributors of homeopathic remedies, claiming the homeopathic products are being pushed in violation of a California consumer law against unfair business practices and false advertising ["Homeopathic remedies besieged by lawsuits," by Tom Philp, *Sacramento Bee*, Dec. 16, 1996]. If Driscoll and Sampson win, they will do in one year what science and logical argumentation could not accomplish in 200 years: wipe out a pseudoscience. Frankly, I don't approve. If people want to buy and drink lemonade which some aquatic entrepreneur has called a tonic that can cure warts, boils and cancer, let them. As long as their products aren't dangerous in themselves, and the government isn't using tax dollars to subsidize the fiasco, then let the buyer beware and let the lawyers be quiet.

See **related entries** on [alternative medicine](#).

further reading

[reader comments](#)

- [Mass Media Bunk on homeopathy](#)
- [Homeopathy - the ultimate fake](#) by Stephen Barrett, M.D.
- [Homoeopathy](#) by Andrew Vickers, Catherine Zollman
- [What's up with homeopathy?](#) - Cecil Adams, The Straight Dope
- [Homeopathy - a position statement by the National Council Against Health Fraud](#)
- [Alternative Medicine and the Laws of Physics](#) by Robert L. Park
- [The Health Gazette of Karl Hempel, M.D.: Homeopathy](#)
- [Canine Natural Cures](#) Homeopathy for the dogs of the world

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[Can Light and
Aromatherapy Treat
Dementia?](#)

aromatherapy

Aromatherapy is a term coined by French chemist René Maurice Gattefossé in the 1920's to describe the practice of using essential oils taken from plants, flowers, roots, seeds, etc., in healing. The term is a bit misleading, since the aromas of oils, whether natural or synthetic, are generally not themselves therapeutic. Aromas are used to identify the oils, to determine adulteration, and to stir the memory, but not to directly bring about a cure or healing. It is the "essence" of the oil--its chemical properties--that gives it whatever therapeutic value the oil might have. Furthermore, vapors are used in some but not all cases of aromatherapy. In most cases, the oil is rubbed onto the skin or ingested in a tea or other liquid. Some aromatherapists even consider cooking with herbs a type of aromatherapy.

The healing power of essential oils is the main attraction in aromatherapy. It is also the main question for the skeptic. There is very little evidence for all the claims made by aromatherapists regarding the various healing properties of oils. Most of the support for the healing power of such substances as tea tree oil is in the form of [anecdotes](#) such as the following:

In the plane on my way to India [from Europe] a few years ago, my index finger began throbbing violently. A rose thorn had lodged in it two days before, as I pruned my roses. It was now turning septic. I straight away applied tea tree oil undiluted to the finger. By the time I arrived in Bangalore, the swelling had almost gone and the throbbing had stopped (Daniele Ryman, *Aromatherapy*).

This kind of [post hoc reasoning](#) abounds in the literature of alternative health care. What would be more convincing would be some [control studies](#) such as the following:

Professor Tomas Riley of the Department of Microbiology at the University of Washington has published a paper in [blah blah scientific journal] which demonstrates that tea tree oil kills many bacteria present in common infections, including some staphylococci and streptococci.*

When references are made to other aromatherapists, they are usually of the following type:

Marguerite Maury prescribed rose for frigidity, ascribing aphrodisiac properties to it. She also considered rose a great

tonic for women who were suffering from depression
(Daniele Ryman, *Aromatherapy*, p, 205).

Such [testimonials](#) are never met with skepticism or even curiosity as to what evidence there is for them. They are just passed on as if they were articles of faith.

Besides personal experience, the only kind of research aromatherapists seem interested in is in reading what other aromatherapists have said or believed about plants or oils. The practitioners and salespersons of aromatherapeutic products seem singularly uninterested in scientific testing of their claims, many of which are empirical and could be easily tested. Of course, there are many aromatherapists who make non-testable claims, such as claims regarding how certain oils will affect their "subtle body," bring balance to their chakra, restore harmony to their energy flow, return one to their center, or contribute to spiritual growth. Aromatherapy is said to restore or enhance mental, emotional, physical or spiritual health. Such claims are essentially non-testable. They are part of New Age mythology and can't really engender any meaningful discussion or debate.

When aromatherapists get into professional debates about empirical matters it is generally over such matters as whether natural oils are superior to synthetic ones, though even here references to scientific studies of the issue are sought in vain. The way aromatherapist Daniele Ryman, a defender of natural oils, treats the subject of "lavender" is typical. In her book, *Aromatherapy*, she gives some botanical and historical information about the plant, including a claim by Matthiöle, a 16th century botanist, that lavender is a panacea which can cure epilepsy, apoplexy and mental problems. She tells us that the principal constituents of lavender are alcohols such as borneol, geraniol and linalool; esters such as geranyl and linalyl; and terpenes such as pinene and limonene. Lavender also contains a high percentage of phenol, a strong antiseptic and antibiotic. She also notes that while many essential oils are very toxic, lavender is one of the least toxic of all oils. Then she tells us that lavender is "the oil most associated with burns and healing of the skin." She says lavender is "very effective in treating cystitis, vaginitis, and leucorrhöa." Furthermore, as an herbal tea, lavender "is also good as a morning tonic for convalescents, as a digestive after meals, for rheumatic conditions, and at the first appearance of a cold or flu." To prevent varicose veins, Ryman advises that you "massage the legs with an oil consisting of 3 drops cypress oil, 2 drops each of lavender and lemon oil, and 1 ounce of soy oil" (p. 143). Nowhere does she give any indication that anyone anywhere has done any control studies with lavender to test any of these claims. Now, it's true that expressions such as 'very effective' and 'is good' are not very precise, but they are not complete weaslers like 'helps' (which is what she says lavender in your bath will do for cellulite). And 'most associated' with burns doesn't actually say that it will do any good for burns. Still, I think these claims can be made precise enough to test, though I doubt if Ryman or most other aromatherapists have any interest in doing such tests.

For some reason, Ryman doesn't say much about lavender's use to reduce stress in her chapter on lavender. However, in a section on "Insomnia" she says that "lavender is a gentle narcotic, recommended for mental and physical strain." There has been a study done, not mentioned by Ryman, which compared the effects on intensive care patients of aromatherapy using lavender, massage therapy and rest. The study concluded that rest was best (Dunn).

I would not reject aromatherapy out of hand, however. When I have a cold and a stuffy nose, I'll use Vicks VapoRub, a mixture of camphor, menthol and eucalyptus oil. Strictly speaking, I suppose I am a practicing aromatherapist. However, when I look at what people who call themselves aromatherapists claim, I have to conclude that aromatherapy is a mostly a pseudoscientific alternative medical therapy. It is a mixture of folklore, trial and error, anecdote, testimonial, New Age spiritualism and fantasy. What aromatherapy lacks is a knack for sniffing out non-sense.

See **related entry** on [alternative health practices](#) and [Bach's flower therapy](#).

further reading

[reader comments](#)

- [Aromatherapy: Making Dollars out of Scents](#) by Stephen Barrett, M.D.
- [Scents and Nonsense: Does Aromatherapy Stink?](#) by Cheryl A. Sweet

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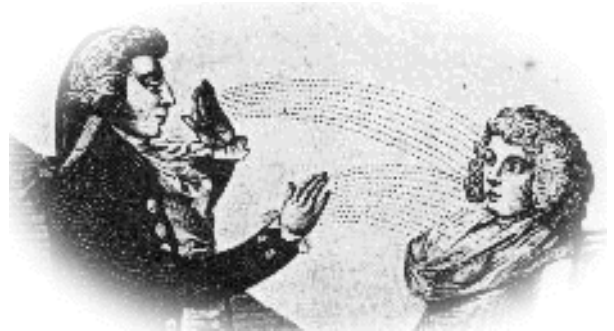
[How hypnosis can
colour the mind](#)

[Monday February 18,
2002 The Guardian](#)

[Hypnosis does not
help accurate
memory recall, says
study By Celia Hall,
Medical Editor
\(Filed: 27/08/2001\)](#)

hypnosis

Hypnosis is a process involving a hypnotist and a subject who agrees to be hypnotized. Being hypnotized is usually characterized by (a) intense concentration, (b) extreme relaxation, and (c) high suggestibility.



The versatility of hypnosis is unparalleled. Hypnosis occurs under dramatically different social settings: the showroom, the clinic, the classroom, and the police station. Showroom hypnotists usually work bars and clubs. Their subjects are usually people whose idea of a good time is to join dozens or hundreds of others in a place where alcohol is the main social bonding agent. The subjects of clinical hypnotists are usually people with problems who have heard that hypnotherapy works for [relieving pain](#) or overcoming an addiction or a fear, etc. Others use hypnosis to [recover repressed memories](#) of sexual abuse or of [past lives](#). Some psychologists and hypnotherapists use hypnosis to discover truths hidden from ordinary consciousness by tapping into the [unconscious mind](#) where these truths allegedly reside. Finally, some hypnotic subjects are people who have been victims or witnesses of a crime. The police encourage them to undergo hypnosis to help them remember details from their experiences.

Hypnosis: the common view challenged

The common view of hypnosis is that it is a trance-like altered state of consciousness. Many who accept this view also believe that hypnosis is a way of accessing an unconscious mind full of [repressed memories](#), [multiple personalities](#), [mystical insights](#), or [memories of past lives](#). This view of hypnosis as an altered state and gateway to occult knowledge about the self and the universe is considered a myth by many psychologists. There are two distinct, though related, aspects to this mythical view of hypnosis: *the myth of [the altered state](#)* and *the myth of [the occult reservoir](#)*.

Those supporting the altered state theory often cite studies that show that during hypnosis (1) the brain's electrical states change and (2) brain waves differ from those during waking consciousness. The critics of the mythical view point out that these facts are irrelevant to establishing hypnosis as an altered state of consciousness. One might as well call daydreaming, concentrating, imagining the color red, or sneezing altered states, since the experience of each will show electrical changes in the brain and changes in

brain waves from ordinary waking consciousness.

Those supporting the unconscious occult reservoir theory support their belief with anecdotes of numerous people who, while hypnotized, (a) recall events from their present or past life of which they have no conscious memory, or (b) relate being in distant places and/or future times while under hypnosis.

Most of what is *known* about hypnosis, as opposed to what is *believed*, has come from studies on the *subjects* of hypnosis. We know that there is a significant correlation between being imaginative and being responsive to hypnosis. We know that those who are fantasy-prone are also likely to make excellent hypnotic subjects. We know that vivid imagery enhances suggestibility. We know that those who think hypnosis is rubbish can't be hypnotized. We know that hypnotic subjects are not turned into [zombies](#) and are not controlled by their hypnotists. We know that hypnosis does not enhance the accuracy of memory in any special way. We know that a person under hypnosis is very suggestible and that memory is easily "filled-in" by the imagination and by suggestions made under hypnosis. We know that [confabulation](#) is quite common while under hypnosis and that many States do not allow testimony which has been induced by hypnosis because it is intrinsically unreliable. We know the greatest predictor of hypnotic responsiveness is what a person *believes* about hypnosis.

Hypnosis in its socio-cognitive context

If hypnosis is not an altered state or gateway to a mystical and occult unconscious mind, then what is it? Why do so many people, including those who write psychology textbooks, or dictionary and encyclopedia entries, continue to perpetuate the mythical view of hypnosis as if it were established scientific fact? For one thing, the mass media perpetuates this myth in countless movies, books, television shows, etc., and there is an entrenched tradition of hypnotherapists who have faith in the myth, make a good living from it, and see many effects from their sessions which, from their point of view, can only be called "successes." They even have a number of scientific studies to support their views. Psychologists such as Robert Baker think such studies are about as valid as the studies which supported the belief in [phlogiston](#) or the [aether](#). Baker claims that what we call hypnosis is actually a form of *learned social behavior*.

The hypnotist and subject learn what is expected of their roles and reinforce each other by their performances. The hypnotist provides the suggestions and the subject responds to the suggestions. The rest of the behavior--the hypnotist's repetition of sounds or gestures, his soft, relaxing voice, etc., and the trance-like pose or sleep-like repose of the subject, etc.--are just window dressing, part of the drama that makes hypnosis seem mysterious. When one strips away these dramatic dressings what is left is something quite ordinary, even if extraordinarily useful: a self-induced, "psyched-up" state of

suggestibility.

Psychologist Nicholas Spanos agrees with Baker: “hypnotic procedures influence behavior indirectly by altering subjects’ motivations, expectations and interpretations.” This has nothing to do with putting the subject into a trance and exercising control over the subconscious mind. Hypnosis is a learned behavior, according to Spanos, issuing out of a socio-cognitive context. We can accomplish the same things in a variety of ways: going to college or reading a book, taking training courses or teaching oneself a new skill, listening to pep talks or giving ourselves a pep talk, enrolling in motivation courses or simply making a willful determination to accomplish specific goals. In short, what is called hypnosis is an act of social conformity rather than a unique state of consciousness. The subject acts in accordance with expectations of the hypnotist and hypnotic situation and behaves as he or she thinks one is supposed to behave while hypnotized. The hypnotist acts in accordance with expectations of the subject (and/or audience) and the hypnotic situation, and behaves as he or she thinks one is supposed to behave while playing the role of hypnotist.

Spanos compares the popularity of hypnosis with the nineteenth century phenomenon we now call [mesmerism](#). Furthermore, he draws an analogy between the belief in hypnosis and the belief in demonic possession and [exorcism](#). Each can be explained in terms of sociocognitive context. The conceptions of the roles for the participants in all of these beliefs and behaviors are learned and reinforced in their social settings. They are context-dependent and depend upon the willingness of participants to play their established roles. Given enough support by enough people in a social setting, just about any concept or behavior can become adamantly defended as dogma by the scientific, theological, or social community.

Another psychologist, E.M. Thornton, extends the analogy between hypnotism, mesmerism, and exorcism. She maintains that hypnotic subjects are asked basically to take on “what really amounts to a parody of epileptic symptoms.” If some hypnotic or mesmerized subjects seem possessed, that is because possession involves a similar socio-cognitive context, a similar role-playing arrangement and rapport. The central beliefs differ and the dominant idea of an altered state, of animal magnetism or of invading demons, gives the experiences their distinguishing characteristics. Deep down, however, hypnotism, mesmerism, hysteria, and demonic possession share the common ground of being social constructs engineered mainly by enthusiastic therapists, showmen, and priests on the one side, and suggestible, imaginative, willing, fantasy-prone players with deep emotional needs or abilities on the other.

hypnosis: the good, the bad and the ugly

The godfather of the repression, Freud, wisely gave up using hypnosis in

therapy. Unfortunately, however, hypnosis continues to be used in a wide variety of contexts, not all of which are beneficial. Using hypnosis to help people quit smoking or stick to a diet may be useful, and even if it fails it is probably not harmful. Using hypnosis to help people remember license plate numbers of cars used in crimes may be useful, and even if it fails it is probably not harmful. Using hypnosis to help victims or witnesses of crimes remember what happened may be useful, but it can also be dangerous because of the ease with which the subject can be manipulated by suggestions from the hypnotist. Overzealous police hypnotists may put conviction of those they think are guilty above honest conviction by honest evidence presented to a jury. Hypnosis is also dangerous in the police setting, because of the tendency of too many police officers to believe in truth serums, [lie detectors](#), and other [magical and easy ways to get to the truth](#).

Using hypnosis to help people recover memories of sexual abuse by their closest relatives or by [aliens in spaceships](#) is dangerous, and in some cases, clearly immoral and degrading. For, in some cases, hypnosis is used to encourage patients to remember and then believe events which probably never happened. If these memories were not of such horrible and painful events, they would be of little concern. But by nurturing delusions of evil suffered, therapists often do irreparable harm to those who put their trust in them. And they do this in the name of healing and caring, as did the priests of old when they hunted witches and exorcised demons.

See related entries on [alien abductions](#), [altered states](#), [exorcism](#), [memory](#), [mesmerism](#), [multiple personality disorder](#), [Bridey Murphy](#), [New Age Therapies](#), [past-life regression](#), [repressed memory](#), [repressed memory therapy](#), [Charles Tart](#) and [the unconscious mind](#).

further reading

[reader comments](#)

- [What is Hypnosis?](#) the mythical view explained
- [Hypnosis in Interrogation - Mesmerized by the CIA](#)
- [Twelve Myths about False Memories](#)
- [The Truth and the Hype of Hypnosis](#) by Michael Nash

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[hypnopompic state](#)



[hystero-epilepsy](#)

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magick

Magick is the alleged art and science of causing change in accordance with the will by non-physical means.

Magick is associated with all kinds of [paranormal](#) and [occult](#) phenomena, including but not limited to: [ESP](#), [astral projection](#), [psychic healing](#), [the cabala](#), and [chakras](#). Magick uses various symbols, such as the [pentagram](#), as well as a variety of symbolic ritual behaviors aimed at achieving powers which allow one to contravene the laws of physics, chemistry, etc. Magick should not be confused with magic, which is the art of [conjuring](#) and legerdemain.

The religions based on the Old and New Testaments have long associated magick with false prophets, based upon the belief that [Satan](#) regularly exhibits his powers to and shares them with humans. Using powers which contravene natural forces is good if done by or through God (white magick), according to this view. Such exhibitions of divine power are called [miracles](#). If done by diabolical forces, it is evil (black magick).

The idea of being able to control such things as the weather or one's health by an act of will is very appealing. So is the idea of being able to wreak havoc on one's enemies without having to lift a finger: just think it and thy will will be done. Stories of people with special powers are appealing, but for those contemplating becoming a magus consider this warning from an authority on the subject:

...magick ritual (or any magick or occultism) is very dangerous for the mentally unstable. If you should somehow 'get out too far', eat 'heavy foods' . . . and use your religious background or old belief system for support. But remember too, that weird experiences are not necessarily bad experiences. [[Phil Hansford, Ceremonial Magick](#)]

On the other hand, weird experiences are not necessarily good, either.

The magic of performing magicians is related to magick in that performers use tricks and deception to make audiences think they have done things which, if real, would require supernatural or paranormal powers, e.g., materializing objects such as rings or ashes, doves or rabbits. Some magicians have attributed their feats not to magic but to supernatural or paranormal powers, e.g., [Sai Baba](#) and [Uri Geller](#).

Of course, the beauty and magic of nature has nothing to do with magick. There is the magic of the birth of a healthy child; the magic of true love. There is the magic of getting out of bed in the morning through an act of will. Unfortunately, this only seems to be magic to those who do not have this power. Those of us who can direct our bodies through acts of will too often take this power for granted. We fail to see the wondrousness of simple things, like wiping the sweat from one's brow. We take for granted the act of opening our eyes to feast on the sublimity of glaciers and oceans or the beauty of sunsets or meadows of wild flowers. These are truly magical deeds and, when contemplated, hold enough wonder to fill universes. But for many, it seems, such *real* magic will never be enough.

See **related entries** on [miracles](#), [Satan](#), [sympathetic magic](#), [true-believer syndrome](#), [wicca](#) and [witches](#).

further reading

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- [Total Tricks.com](#)
- [Trick Magic.com](#)
- [Ceremonial Magick](#), copyrighted by Phil Hansford. It has 11 chapters on such subjects as astral projection, esp and psi, chakras, the cabala, psychic healing, pentagrams, rituals, etc.
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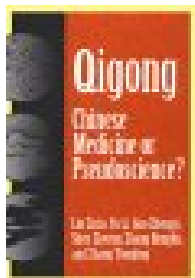
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[Qigong : Chinese
Medicine or
Pseudoscience?](#)
[by Zixin Lin \(Editor\),
Yu Li, Guo Zhengyi,
Shen Zhenyu, Zhang
Honglin, Lin Zixin](#)

chi kung (ch'i kung or qi gong)

Ch'i kung or qi gong (pronounced *chee gung* and henceforth spelled *chi kung*) is claimed to be "the science and practice" of [chi](#). Chi kung literally means *energy cultivation*. Physical and mental health are allegedly improved by learning how to manipulate *chi* through controlled breathing, movement, and acts of will. *Chi kung* masters claim to be able to heal at a distance by manipulating *chi*. It is even said that one can strengthen the immune system by mastering one's *chi*.

Most Westerners are vaguely familiar with [Kung Fu](#) and [Tai Chi](#), both of which are related to *chi kung*. The former is a martial art and the latter is a type of exercise, or internal martial art. The former is sometimes known for demonstrations of breaking bricks with bare hands. The latter is known for the graceful poses of its practitioners. These demonstrations, and stories of even more powerful demonstrations, are offered as evidence of the paranormal or supernatural power that comes to those who master *chi*.

Asian martial arts schools have become very popular in the West. There is certainly a good side to these training centers for children and adults. They encourage attention to diet and physical exercise. They cultivate physical strength and mental self-discipline. Many focus on self-defense, and they boost self-confidence and self-esteem, even if they don't really make one invincible. However, they also often encourage students to believe they can achieve supernatural or paranormal powers, or heal just about any illness by an act of will, by training and discipline under a "master."

What empirical evidence is there for *chi* or its harnessing? [Testimonials](#) and [self-validating statements](#) are offered in lieu of [controlled scientific tests](#). Nevertheless, advocates are convinced they are not deluded in their metaphysical explanations. The [acupuncturist](#) is convinced he or she is unblocking *chi*. The [reiki](#) therapist and [therapeutic touch](#) nurse think they are channeling ki or [prana](#). The Reichians think they can heal the body by harnessing and directing [orgone](#). As a philosophy, chi kung and its relatives may provide one with a sense of harmony, power and meaning. As a metaphysical belief there is no way to disprove the existence of *chi*. However, explanations of events in terms of controlling and harnessing chi are superfluous by [Occam's razor](#).

further reading

[reader comments](#)

- ["Acupuncture, Qigong, and "Chinese Medicine"](#) by Stephen Barrett, M.D.
- [The Twelve Primary Qi Channels](#) by Yang, Jwing-Ming
- [SHAOLIN KUNGFU, CHI KUNG AND ZEN](#)
- [The Chinese Philosophy Page](#)
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[alchemy](#)

reader comments:

alchemy

4 Feb 2000

You make the ridiculous assertion that science as we know it has advanced only after the search for the essence of life has been abandoned (your supposed "definition" of alchemy); just a cursory examination of the lives of Newton, Einstein, Abel , Bohr, Fludd, Descartes, Pascal, etc. would show you what a fool you really are.

Scott Damon

reply: I apologize for not being clearer so a serious scholar such as yourself would not misunderstand. I have added a link to the term 'essence' to make it clear that I am referring to the fact that as long as inquirers searched for the *formal essence* of things, believed to be real and distinct from physical entities as well as knowable by rational intuition, scientific progress was not possible. For example, until *heat* was understood as an effect of matter in motion rather than as a *real quality* belonging to bodies, a scientific understanding of heat was not possible.

Descartes retained this scholastic way of looking at things, for instance, and he made no significant contribution to physics. Newton did not seek *essences* and we all know what he accomplished.

[Robert Fludd](#) belongs in a different list, I think, from [Niels Bohr](#) and [Einstein](#).

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[A Gallup poll indicates that belief in visitations from alien beings has increased from 27% to 33% over the past decade.](#)

Note: this entry is included in [UFOs \(San Diego: Greenhaven Press, 1999\) edited by William Dudley](#)



alien abductions

"...despite the fact that we humans are great collectors of souvenirs, not one of these persons [claiming to have been aboard a flying saucer] has brought back so much as an extraterrestrial tool or artifact, which could, once and for all, resolve the UFO mystery."

Philip Klass

There is a widespread belief that alien beings have traveled to earth from some other planet and are doing reproductive experiments on a chosen few. Despite the incredible nature of this belief and a lack of credible supportive evidence, a cult has grown up around it. According to a Gallup poll done at the end of the twentieth century, about one-third of Americans believe aliens have visited us, an increase of 5% over the previous decade.

According to the tenets of this cult, aliens crashed at [Roswell](#), New Mexico, in 1947. The U.S. Government recovered the alien craft and its occupants, and has been secretly meeting with aliens ever since in a place known as [Area 51](#). The rise in [UFO](#) sightings is due to the increase in alien activity on earth. The aliens are abducting people in larger numbers, are leaving other signs of their presence in the form of so-called crop circles, are involved in [cattle mutilation](#), and occasionally provide revelations such as the [Urantia Book](#) to selected prophets. The support for these beliefs about aliens and UFOs consists mostly of speculation, fantasy, fraud, and unjustified inferences from questionable evidence and testimony. UFO devotees are also convinced that there is a government and mass media conspiracy to cover-up the alien activities, making it difficult for them to prove that the aliens have landed.

It is probable that there is life elsewhere in the universe and that some of that life is intelligent. There is a high mathematical probability that among the trillions of stars in the billions of galaxies there are millions of planets in age and proximity to a star analogous to our Sun. The chances seem very good that on some of those planets life has evolved. It is even highly probable that natural selection governs that evolution (Dawkins). However, it is not inevitable that the results of that evolution would yield intelligence, much less intelligence equal or superior to ours. It is possible that we are unique (Pinker, 150 ff.).

We should not forget, however, that the closest star (besides our Sun) is so far away from Earth that travel between the two would take more than a human lifetime. The fact that it takes our Sun about 200 million years to revolve once around the Milky Way gives one a glimpse of the perspective we have to take of interstellar travel. We are 500 light-seconds from the sun. The next nearest star to earth's sun (Alpha Centauri) is about 4 light-years away. That might

sound close, but it is actually something like 24 trillion miles away. Even traveling at one million miles an hour, it would take more than 2,500 years to get there. To get there in twenty-five years would require traveling at more than 100 million miles an hour for the entire trip.* Our fastest spacecraft, Voyager, travels at about 40,000 miles an hour and would take 70,000 years to get to Alpha Centauri.*

Despite the probability of life on other planets and the possibility that some of that life may be very intelligent, any signal from any planet in the universe broadcast in any direction is unlikely to be in the path of another inhabited planet. It would be folly to explore space for intelligent life without knowing exactly where to go. Yet, waiting for a signal might require a wait longer than any life on any planet might last. Finally, if we do get a signal, the waves carrying that signal left hundreds or thousands of years earlier and by the time we tracked its source down, the sending planet may no longer be habitable or even exist.

Thus, while it is probable that there is intelligent life in the universe, traveling between solar systems in search of that life poses some serious obstacles. Such travelers would be gone for a very long time. We would need to keep people alive for hundreds or thousands of years. We would need equipment that can last for hundreds or thousands of years and be repaired or replaced in the depths of space. These are not impossible conditions, but they seem to be significant enough barriers to make interstellar and intergalactic space travel highly improbable. The one thing necessary for such travel that would not be difficult to provide would be people willing to make the trip. It would not be difficult to find many people who believe they could be put to sleep for a few hundred or thousand years and be awakened to look for life on some strange planet. They might even believe they could then gather information to bring back to Earth where they would be greeted with a ticker tape parade down the streets of whatever is left of New York City.

abduction and rape?

Despite the fact of the improbability of interplanetary travel, it is not impossible. Perhaps there are beings who can travel at very fast speeds and have the technology and the raw materials to build vessels that can travel at near the speed of light or greater. Have such beings come here to abduct people, rape and experiment on them? There have been many reports of abduction and sexual violation by creatures who are small and bald; are white, gray or green; have big craniums, small chins, large slanted eyes, and pointed or no ears. How does one explain the number of such claims and their similarity? The most reasonable explanation for the accounts being so similar is that they are based on the same movies, the same stories, the same television programs and the



same comic strips.

The alien abduction story that seems to have started the cult beliefs about alien visitation and experimentation is the Barney and Betty Hill story. The Hills claim to have been abducted by aliens on September 19, 1961. Barney claims the aliens took a sample of his sperm. Betty claims they stuck a needle in her belly button. She took people out to an alien landing spot, but only she could see the aliens and their craft. The Hills recalled most of their story under hypnosis a few years after the abduction. Barney Hill reported that the aliens had "wraparound eyes," a rather unusual feature. However, twelve days earlier an episode of "The Outer Limits" featured just such an alien being (Kottmeyer). According to Robert Schaeffer, "we can find all the major elements of contemporary UFO abductions in a 1930 comic adventure, *Buck Rogers in the 25th Century*."

The Hill's story has been repeated many times. There is a period of amnesia following the alleged encounter. There is then usually a session of hypnosis, counseling or psychotherapy during which comes the recollection of having been abducted and experimented on. The only variation in the abductees' stories is that some claim to have had implants put in them and many claim to have scars and marks on their bodies put there by aliens. All describe the aliens in much the same way.

Whitley Strieber, who has written several books about his alleged abductions, came to the realization he had been abducted by aliens after psychotherapy and hypnosis. Strieber claims that he saw aliens set his roof on fire. He says he has traveled to distant planets and back during the night. He wants us to believe that he and his family alone can see the aliens and their spacecraft while others see nothing. Strieber comes off as a very disturbed person, but one who really believes he sees and is being harassed by aliens. He describes his feelings precisely enough to warrant believing he was in a very agitated psychological state prior to his visitation by aliens. A person in this heightened state of anxiety will be prone to hysteria and be especially vulnerable to radically changing behavior or belief patterns. When Strieber was having an anxiety attack he consulted his analyst, Robert Klein, and Budd Hopkins, an alien abduction researcher. Then, under hypnosis, Strieber started recalling the horrible aliens and their visitations.

Hopkins demonstrated his sincerity and investigative incompetence on the public television program Nova ("Alien Abductions," first shown on February 27, 1996). The camera followed Hopkins through session after session with a very agitated, highly emotional "patient". Then Nova followed Hopkins to Florida where he cheerfully helped a visibly unstable mother inculcate in her children the belief that they had been abducted by aliens. In between more sessions with more of Hopkin's "patients", the viewer heard him repeatedly give plugs for his books and his reasons for showing no skepticism at all regarding the very bizarre claims he was eliciting from his "patients". Dr.

Elizabeth Loftus was asked by Nova to evaluate Hopkin's method of "counseling" the children whose mother was encouraging them to believe they had been abducted by aliens. From the little that Nova showed us of Hopkins at work, it was apparent that Mr. Hopkins encouraged the creation of memories, though Hopkins claims he is uncovering repressed memories. Dr. Loftus noted that Hopkins did much encouraging of his "patients" to remember more details, as well as giving many verbal rewards when new details were brought forth. Dr. Loftus characterized the procedure as "risky" because we do not know what effect this "counseling" will have on the children. It seems we can safely predict one effect: they will grow up thinking they've been abducted by aliens. This belief will be so embedded in their memory that it will be difficult to get them to consider that the "experience" was planted by their mother and cultivated by alien enthusiasts like Hopkins.

John Mack

Another alien enthusiast is Harvard psychiatrist Dr. John Mack, who has written books about his patients who claim to have been abducted by aliens. Many of Mack's patients have been referred to him by Hopkins. Dr. Mack claims that his psychiatric patients are not mentally ill (then why is he treating them?) and that he can think of no other explanation for their stories than that they are true. However, until the good doctor or one of his patients produces physical evidence that abductions have occurred, it seems more reasonable to believe that he and his patients are deluded or frauds. Of course, the good doctor can hide behind academic freedom and the doctor/patient privacy privilege. He can make all the claims he wants and refuse to back any of them up on the grounds that to do so would be to violate his patients' rights. He can then publish his stories and dare anyone to take away his academic freedom. He is in the position any con person would envy: he can lie without fear of being caught.

Dr. Mack also appeared on the *Nova* "Alien Abductions" program. He claimed that his patients are otherwise normal people, which is a debatable point if his patients are anything like Hopkin's patients who appeared on the program. Mack also claimed that his patients have nothing to gain by making up their incredible stories. For some reason it is often thought by intelligent people that only morons are deceived or deluded and that if a person's motives can be trusted then his or her testimony can be trusted, too. While it is true that we are justified in being skeptical of a person's testimony if she has something to gain by the testimony (such as fame or fortune), it is not true that we should trust any testimony given by a person who has nothing to gain by giving the testimony. An incompetent observer, a drunk or drugged observer, a mistaken observer, or a deluded observer should not be trusted, even if he is as pure as the mountain springs once were. The fact that a person is kind and decent and has nothing to gain by lying does not make him or her immune to error in the interpretation of their perceptions.

One thing Dr. Mack did not note is that his patients gain a lot of attention by

being abductees. Furthermore, no mention was made of what he and Hopkins have to gain in fame and book sales by encouraging their clients to come up with more details of their "abductions". Mack received a \$200,000 advance for his first book on alien abductions. Mack also benefits by publicizing and soliciting funds for his Center for Psychology and Social Change and his Program for Extraordinary Experience Research. Dr. Mack, by the way, is very impressed by the fact that his patients' stories are very similar. He also believes in [auras](#) and has indicated that he believes that some of his wife's gynecological problems may be due to aliens. Harvard keeps him on staff in the name of academic freedom.

Another contributor to the mythology of alien abductions is Robert Bigelow, a wealthy Las Vegas businessman who likes to use his money to support paranormal research (see entry on [Charles Tart](#)) and who partially financed a Roper survey on alien abductions. The survey did not directly ask its 5,947 respondents if they had been abducted by aliens. Instead it asked them if they had undergone any of the following experiences:

--Waking up paralyzed with a sense of a strange person or presence or something else in the room.

--Experiencing a period of time of an hour or more, in which you were apparently lost, but you could not remember why, or where you had been.

--Seeing unusual lights or balls of light in a room without knowing what was causing them, or where they came from.

--Finding puzzling scars on your body and neither you nor anyone else remembering how you received them or where you got them.

--Feeling that you were actually flying through the air although you didn't know why or how.

Saying yes to 4 of the 5 "symptoms" was taken as evidence of alien abduction. A sixty-two page report, with an introduction by John Mack, was mailed to some 100,000 psychiatrists, psychologist and other mental health professionals. The implication was that some 4 million Americans or some 100,000,000 earthlings have been abducted by aliens. As Carl Sagan wryly commented: "It's surprising more of the neighbors haven't noticed." The timing of the mailing was impeccable: shortly before the CBS-TV miniseries based on Strieber's *Intruders*.

Some of those who claim to have been abducted by aliens are probably frauds, some are very stressed, and some are probably suffering from a severe

psychiatric disorder, but most seem to be fairly normal people who are especially fantasy-prone. Most do not seem to be money grabbers, using their weird experiences as a chance to get on television or to have movies made of their lives. In other words, the testimony is often, if not mostly, made by reasonably normal people without known ulterior motives. If their claims were not so bizarre, it would be indecent to distrust many of them. Defenders of the reasonableness of belief in alien abductions point to the fact that not all of the stories can be accounted for by confabulation. However, hypnosis and other suggestive means are often used to access memories of abduction. Hypnosis is not only an unreliable method of gaining access to accurate memories, it is a method that can be very easily used to implant memories. Furthermore, it is known that people who believe they have been abducted by aliens are very fantasy prone. Being fantasy-prone is not an abnormality, if abnormality is defined in terms of minority belief or behavior. The vast majority of humans are fantasy prone, otherwise they would not believe in God, angels, spirits, immortality, devils, ESP, Bigfoot, etc. A person can function "normally" in a million and one ways and hold the most irrational beliefs imaginable, as long as the irrational beliefs are culturally accepted delusions. Little effort is put forth to try to find out why people believe the religious stories they believe, for example, but when someone holds a view outside of the culture's accepted range of delusional phenomena, there seems to be a need to "explain" their beliefs.

shared cultural delusions

Those who claim to have been abducted by aliens may be neither crazy nor telling the truth. It might be better to think of them as sharing a cultural delusion. They are similar to the people who have [near-death experiences](#) of going down the dark tunnel to the bright light, or who see Jesus beckoning to them. These shared experiences do not prove that the experiences were not fantasies. They are likely due to similar brain states in the near-death experience, and similar life experiences and death expectations. The alternatives are not either that they are totally crazy or that they really did die, go to another world, and return to life. There is a naturalistic explanation in terms of brain states and shared cultural beliefs.

Alien abductees might also be seen as similar to mystics. Both believe they have experienced something denied to the rest of us. The only evidence for their experience is their belief that it happened and the account they give of it. There is no other evidence. The comparison of abductees to mystics is not as farfetched as it might at first seem. The accounts of mystical experiences fall into two basic categories: the ecstatic and the contemplative. Each type of mysticism has its history of anecdotes and testimonials. Like the stories of abductees, the stories of each type of mystic are very similar. Ecstatic mystics tend to describe their indescribable experiences in terms clearly analogous to sexual ecstasy. Going from darkness into the light recalls the birth experience. The contemplative mystics describe their experience of perfect peace and bliss in ways which are reminiscent of a good night's sleep. In the more

advanced stages of mysticism, the experience is clearly analogous to death: a state of total unity, i.e., no diversity, no change, no anything. In short, the fact that mystical experiences are described in similar ways by mystics born in different countries and in different centuries is not evidence of the authenticity of their experiences. The similarity speaks more to the uniformity of human experience. Every culture knows of birth, sex and death.

Abductees are very much analogous not only to mystics, but to medieval nuns who believed they'd been seduced by devils, to ancient Greek women who thought they'd had sex with animals, and to women who believed they were witches. The abductees' counselors and therapists are like the priests of old who do not challenge delusional beliefs, but encourage and nurture them. They do everything in their power to establish their stories as orthodox. It will be very hard to find an abductee who has not been heavily influenced in their belief by reading stories of aliens, or books like Strieber's *Communion* or *Intruders*, or by seeing movies featuring aliens. It will be even more difficult to find an abductee who has not been greatly encouraged in their delusion by a counselor like Hopkins or a therapist like Mack. Given a great deal of encouragement by a believing community, and reinforced by the high priests of the alien abduction cult, it is not very difficult to understand why there are so many people today who believe they have been abducted by aliens.

Yet, if there are beings clever enough to travel around the universe today, there probably were some equally intelligent beings who could have done so in ancient or medieval times. The delusions of the ancients and the medievals are not couched in terms of aliens and spacecraft because these are our century's creations. We can laugh at the idea of gods taking on the form of swans to seduce beautiful women, or of devils impregnating nuns, because they do not fit with our cultural prejudices and delusions. The ancients and medievals probably would have laughed at anyone who would have claimed to have been picked up by aliens from another planet for sex or reproductive surgery. The only reason anyone takes the abductees seriously today is because their delusions do not blatantly conflict with our cultural beliefs that intergalactic space travel is a real possibility and that it is highly probable that we are not the only inhabited planet in the universe. In other times, no one would have been able to take these claims seriously.

Of course, we should not rule out wishful thinking as being at work here. Although, it is a bit easier to understand why someone would wish to have a mystical experience than it is to grasp why anyone would want to be abducted by an alien. But the ease with which we accept that a person might want to have a mystical experience is related to our cultural prejudice in favor of belief in God and the desirability of union with God. The desire to transcend this life, to move to a higher plane, to leave this body, to be selected by a higher being for some special task....each of these can be seen in the desire to be abducted by aliens as easily as in the desire to be one with God or to have an [out-of-body experience \(OBE\)](#).

It is possible, too, that abductees may be describing similar hallucinations due to similar brain states, as Michael Persinger argues. Likewise, the ecstatic and contemplative accounts of mystics may be similar due to similar brain states associated with bodily detachment and a sense of transcendence. Using electrodes to stimulate specific parts of the brain, Persinger has duplicated the feelings of the sensed presence and other experiences associated with [near-death-experiences \(NDEs\)](#), OBEs, mystical experience and the alien abduction experience. The language and symbols of birth, sex and death may be nothing but analogues for brain states. Shared recollections of experiences do not prove that the experiences were not delusions. The experience which abductees think of as an alien abduction experience may be due to certain brain states. These states may be associated with [sleep paralysis](#) or other forms of sleep disturbances, including mild brain seizures. Sleep paralysis occurs in the [hypnagogic state](#) or the [hypnopompic state](#). The description abductees give of their experience--being unable to move or speak, feeling some sort of presence, feeling fear and an inability to cry out--is a list of the symptoms of sleep paralysis. Sleep paralysis is thought by some to account for not only many alien abduction delusions, but also other delusions involving paranormal or supernatural experiences.

There are, of course, certain psychiatric disorders which are characterized by delusions. Many people with these disorders are treated with drugs which affect the production or functioning of neurotransmitters. The treatments are very successful in eliminating the delusions. Persinger has treated at least one person with anti-seizure medication which effectively stopped her from having recurring experiences of the type described by alien abductees and those with sleep paralysis. Countless schizophrenics and manic-depressives, when properly medicated, cease having delusions about God, Satan, the FBI, the CIA, and aliens.

Even though the stories of alien abduction do not seem plausible, if there were physical evidence even the most hardened skeptic would have to take notice. Unfortunately, the only physical evidence that is offered is insubstantial. For example, so-called "ground scars" allegedly made by UFOs have been offered as proof that the aliens have landed. However, when scientists have examined these sites they have found them to be quite ordinary and the "scars" to be little more than fungus and other natural phenomena.

Many abductees point to various scars and "scoop marks" on their bodies as proof of abduction and experimentation. These marks are not extraordinary in any way and could be accounted for by quite ordinary injuries and experiences.

The most dramatic type of physical evidence would be the "implants" which many abductees claim the aliens have put up their noses or in various other parts of their anatomy. Budd Hopkins claims he has examined such an implant and has MRIs (magnetic resonance imaging) to prove numerous

implant claims. When Nova put out an offer to abductees to have scientists analyze and evaluate any alleged implants, they did not get a single person willing to have their so-called implants tested or verified. So, of all the evidence for abduction, the physical evidence seems to be the weakest.

See related entries on [area 51](#), [cattle mutilations](#), [crop circles](#), [flying saucers](#), [Men in Black](#), [Roswell](#), and [UFOs](#).

See also [The Skeptic's Refuge review of the Nova program on alien abductions](#).

further reading

reader comments

- [Kidnapped by UFOs?](#)
- [Sleep Paralysis](#)
- [Sleep Paralysis and Associated Hypnagogic and Hypnopompic Experiences](#)
- [Abduction by Aliens or Sleep Paralysis?](#) by Susan Blackmore
- ["Alien abductions, seismic activity, and the brain - are they related?"](#)
- [Scientific skepticism, UFOs and the flying saucer myth](#)
- [Alien Autopsy Hoax](#)
- [On Fox's "Alien Autopsy" Show](#) by Ed Uthman, MD
- ["An Alien Taxonomy,"](#) by Robert Baker
- ["CIA's Role in the Study of UFOs, 1947-90"](#) by Gerald K. Haines
- [The Doctor's Plot](#) by James Gleik
- [Abduction Watch](#)
- [A Trip through the Universe at the Speed of Light](#) UC San Diego
- [Astronomical Distances](#) by Douglas P. Hamilton and Mike Asbury
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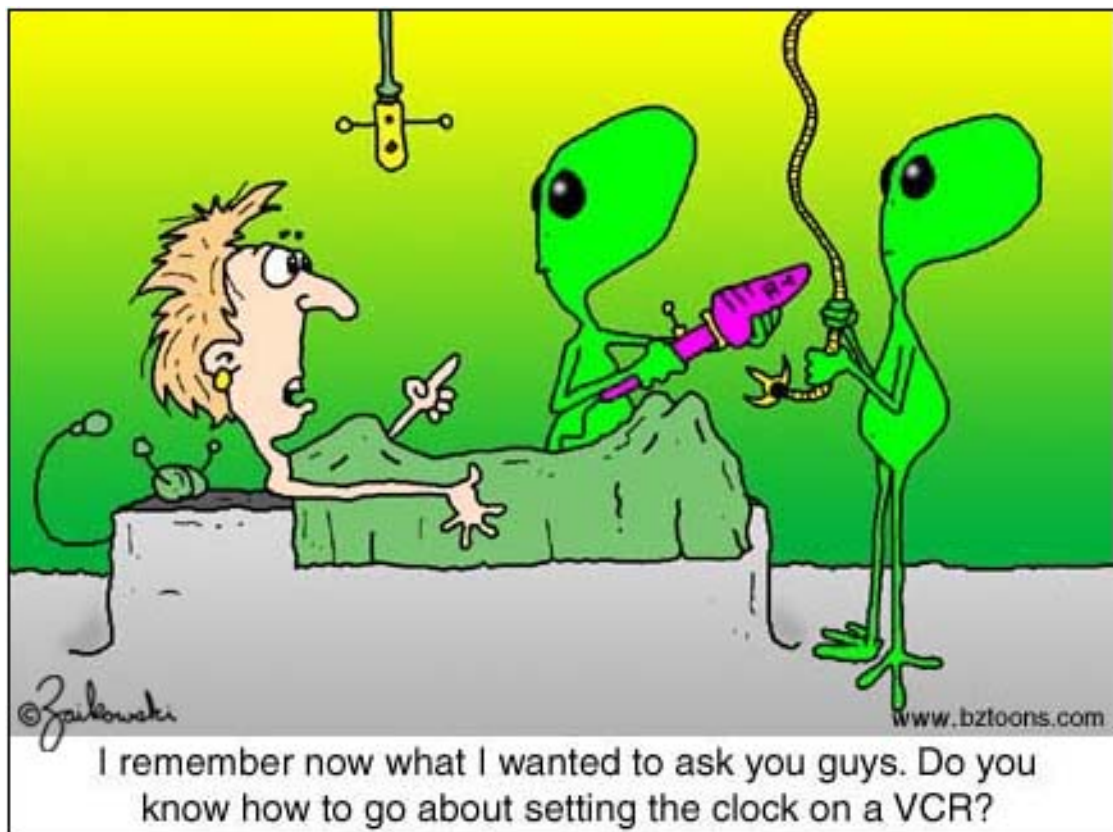
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Roswell

On or around Independence Day, 1947, during a severe thunderstorm near Roswell, New Mexico, an Air Force experiment using high altitude balloons blew apart and fell to the earth. This minor event in the history of reconnaissance turned out to be the Big Bang of UFOlogy. UFO enthusiasts have come to see that 4th of July as the day an alien spaceship crashed on earth. Some UFOlogists claim that aliens were taken away by the U.S. Air Force and other government co-conspirators for an interrogation or an autopsy. Some claim that all our modern technology was learned by analyzing and copying the technology of the aliens.

The actual crash site was on the Foster ranch 75 miles north of Roswell, [a small town doing a big business](#) feeding the insatiable appetite of UFO enthusiasts. Roswell now houses two UFO museums and hosts an annual alien festival. Shops cater to this curious tourist trade, much as Inverness caters to the Loch Ness crowd. This seems a bit unfair to Corona, New Mexico, since it is actually the closest town to the "crash site". Roswell is the nearest military base, however, and that is where the remains of the alien craft and its occupants were allegedly taken. Why the aliens were not taken to a superior medical facility remains a mystery.

William "Mac" Brazel (rhymes with dazzle), foreman of the Foster Ranch, along with a 7-year old girl, Dee Proctor, found the most famous debris in modern history. They had never seen anything like it before. Millions now agree: the stuff was strange. Actually, it was pretty mundane stuff, including a reinforcing tape whose flower-like design was taken to be alien hieroglyphics. Worse, the Air Force was not consistent in describing the debris. The Air Force has even had the audacity to claim that perhaps ardent UFOlogists have had a little trouble with their source memory. Perhaps what people are recalling as a single event was actually several events which occurred in different years (such as weather balloon and nuclear explosion detection balloon tests, airplane crashes with burned bodies, dumping of featureless dummies from airplanes, etc.). The likelihood that Roswell is a reconstruction involving many events over many years is supported by the fact that Roswell was ignored by UFOlogists until Charles Berlitz and William Moore published a book on the subject in 1980, more than thirty years after the event. This is the same Berlitz who popularized the myth of Atlantis and the urban legend regarding The Philadelphia Experiment. Berlitz is essentially an unreliable source who has made a career out of finding other unreliable sources to support his theories.

To the UFO buff, however, the suggestion that they have erred is ludicrous. Yet, they trust Berlitz and others with fantastic stories based on 30-year-old

memories. That the government made errors and was inconsistent is taken as sufficient evidence that there is a massive conspiracy by the government and mass media. They are trying to conceal the truth from the general public that the aliens have landed. Some even believe that the U.S. government has signed a treaty with the aliens. If so, let's hope the U.S. government is more faithful with the aliens than it was with the Native Americans.

Skeptics agree that something crashed near Roswell in 1947, but not an alien craft. Skeptical explanations have varied from weather balloons to secret aircraft to espionage devices. Current conventional wisdom among skeptics is that what was found on the Brazel ranch was part of Project Mogul, a top secret project testing giant, high-flying balloons to detect Soviet nuclear explosions.

The amount of energy expended on Roswell could probably support several alien galaxies for a million eons. It is enough to make a person believe in cranial cold fusion. To UFOers, Roswell is the resurrection, the proof of their faith. They have witnesses, they have inexplicable debris, and they have eyewitness accounts of the little creatures. They have proof after proof of government and media conspiracy and cover-up. They have an entertainment industry that tries to pass off itself as part of the news media, especially the Fox (Alien) Network. This industry consists of radio and TV talk show hosts, publishers and television producers of UFO "specials" on the Discovery Channel and A&E. This industry does little to provide useful information and a great deal to feed UFO enthusiasts hungry for "proof" of their confabulations and government cover-ups. They even have an inept forgery of a [filmed alien autopsy](#) which was shown to more than 10 million people in August 1995 on the Fox (Alien) Network. They've got Marketing Mecca.

To skeptics, Roswell is a classic example of what D.H. Rawcliffe called [retrospective falsification](#). A story of the extraordinary is told, then retold with embellishments and remodeled with favorable points being emphasized while unfavorable ones are dropped. False witnesses put in their two cents. In the case of Roswell, we also have a few unreliable characters who add their delusions, such as Whitley Strieber, Budd Hopkins and John Mack (see the [alien abduction](#) entry). There is also Robert Spencer Carr, the high school graduate who liked to be called "Professor Carr". Carr is a hero in the UFO literature, but his stories of flying saucers and alien creatures were all delusions. His son has written: "I am so very sorry that my father's pathological prevarication has turned out to be the foundation on which such a monstrous mountain of falsehoods has been heaped." It was that mountain of falsehoods that became part of the UFO memory, fixating conviction in a remarkable tale. It happened at Fatima (during a time when the only aliens thought to be visiting our planet were messengers from God) and it happened at Roswell. One might think, however, that unlike the belief in our Lady of Fatima and other beliefs in apparitions from the supernatural world, Roswell might be settled some day since it involves testable hypotheses and refutable

claims. Don't count on it. UFO enthusiasts are every bit as devoted to their belief system as religious fanatics are to theirs. Evidence and rational argument are of little concern to those who consider science fiction to be a wiser guide than science, logic and reasonable probability.

See related entries on [alien abductions](#), [Area 51](#), the [Aztec UFO hoax](#), and [UFOs](#).

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reader comments

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- [Alien Autopsy: Ray Santilli and the 'Roswell Film'](#)
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[Rorschach inkblot test](#)

[runes](#)



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Area 51

"Area 51" is a part of an off-limits military base near Groom Dry Lake in Nevada. UFOers are sure it is used to hide aliens from us. The state of Nevada recently designated a barren 98-mile stretch of Route 375, which runs near Area 51, as the Extraterrestrial Highway. Such a move is no doubt proof of a government attempt to throw us off the track and think there is not a cover-up when there is one. This is a cover-up of the cover-up, typical of government agencies when dealing with sensitive information regarding UFOs and aliens.

Since you can be shot if you try to trespass on the military base where Area 51 is located, UFO tourists must view the sacred ground from a distant vantage point. Many do this, hoping for a glimpse of a UFO landing. Apparently, our government has a treaty with the aliens that allows them to fly into this area at will, as long as we can experiment on them and try to duplicate their aircraft. You don't really think that any *human* could have come up with the idea of the Stealth Bomber, do you?

Skeptics don't doubt that something secret is going on in area 51. And what is going on may be more sinister than building secret aircraft or developing new weapons. "Sixty Minutes" did a segment where Leslie Stahl suggested that area 51 might be an illegal dumping ground for toxic substances. If so, Area 51 might turn out to be hazardous to your health in more ways than one. Several former workers at Area 51 and widows of former workers have filed lawsuits against the government for injuries or death resulting from illegal hazardous waste practices. So far the government has been protected from such suits because of "national security." In fact, the government does not even acknowledge the existence of the base known as Area 51. Such denials, of course, do little more than provide more ammo for those who claim there is a government conspiracy to cover up just about anything it's ever been involved in.

See related entries on [alien abductions](#), [Roswell](#) and [UFOs & ETs](#).

further reading

- [The Klass Files \(Archive of Skeptics UFO Newsletter\)](#)
- [Area 51/Groom Lake](#)

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[Scientists Debunk Spate of UFO Claims Tied to Sun-Observing Spacecraft 1-27-03](#)

[Modern World Kills Magic of UFOs - Technology and Culture Have Erased the Feeling of Wonder From Night Sky](#)
By Charley Lindsey
Sept 1, 2002

According to a Gallup poll (in 2001) belief in visitations from alien beings has increased from 27% to 33% over the last decade of the 20th century.

UFOs (unidentified flying objects)

"...nothing has come from the study of UFOs in the past 21 years that has added to scientific knowledge...further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby." -Edward U. Condon

A **UFO** is an **unidentified flying object** which has been identified as a possible or actual alien spacecraft. Such objects include meteors, disintegrating satellites, flocks of birds, aircraft, lights, weather balloons, and just about anything moving within the visible band of electromagnetism. So far, however, nothing has been positively identified as an alien spacecraft in a way required by common sense and science. That is, there has been no recurring identical UFO experience and there is no physical evidence in support of either a UFO flyby or landing.



There are as many photographs of UFOs as there are of the Loch Ness Monster, and they are of equal quality: blurs and forgeries. Other physical evidence, such as alleged debris from alien crashes, or burn marks on the ground from alien landings, or implants in noses or brains of alien abductees, have turned out to be quite terrestrial, including forgeries. The main reasons for believing in UFOs are the testimony of many people, the inability to distinguish science fiction from science, the willingness to trust incompetent men telling fantastic stories, the ability to distrust all contrary sources as being part of an evil conspiracy to withhold the truth, and a desire for contact with the world above. Belief in aliens in UFOs is akin to belief in supernatural beings..

"UFOlogy is the mythology of the space age. Rather than angels...we now have...extraterrestrials. It is the product of the creative imagination. It serves a poetic and existential function. It seeks to give man deeper roots and bearings in the universe. It is an expression of our hunger for mystery...our hope for transcendental meaning. The gods of Mt. Olympus have been transformed into space voyagers, transporting us by our dreams to other realms." --Paul Kurtz

Dr. J. Allen Hynek, astronomer, foremost proponent of UFOs, and the one who came up with the expression "close encounters of the third kind," defines a UFO as:

[T]he reported perception of an object or light seen in the sky or upon land the appearance, trajectory, and general dynamic and luminescent behavior of which do not suggest a logical, conventional explanation and which is not only mystifying to the original percipients but remains unidentified after close scrutiny of all available evidence by persons who are technically capable of making a common sense identification, if one is possible.

These mystifying words seem to say that when you see something which intelligent people cannot rationally explain, then you are seeing a UFO. Witnesses to such sightings often claim that what they saw could not be explained by the known laws of physics. They claim to have witnessed a violation of a law of nature, i.e., a [miracle](#).

What Hynek considers to be "all available evidence" may be much less than what a skeptic would

require. For example, the evidence appealed to by UFOlogists consists of (1) the testimony of people who claim to have seen aliens and/or alien spacecraft; (2) facts about the type of people who give the testimony; (3) the lack of contrary testimony or physical evidence that would either explain the sighting by conventional means (weather balloon, prank, meteor shower, reflection of light, etc.) or discredit the reliability of the eyewitness; and, (4) alleged weaknesses in the arguments of skeptics against the UFOlogists. The last item is irrelevant to the issue, yet it plays a disproportionately large role in UFOlogy.



Attacking an opponent's arguments or motives, instead of presenting positive evidence in defense of one's own view is common among defenders of the claim that UFOs are alien spacecraft. Of course, there is nothing wrong with attacking an opponent's argument and exposing weaknesses and faults thereby. But refutation is no substitute for support. It is simply faulty logic to assume that because an opponent's reasons are flawed, one's own reasons are valid. One's own reasons may be just as flawed as an opponent's, or even more flawed.

Another common tactic of UFOlogists is to claim that the skeptic cannot prove that what was seen was not an alien craft. One is supposed to infer from this fact that the perception probably was of an alien craft. This kind of reasoning is known as the argumentum ad ignorantiam. A claim does not become true or reasonable if a contrary claim cannot be proved to be true. With arguments for UFOs there are two distinct moves here. One is to claim that no logical explanation is possible because some scientist, pilot, Air Force Colonel, or Ph.D. cannot think of one. The other is to point to the lack of contrary evidence: no counter-testimony of other eyewitnesses, no proof that there were not aliens or alien spacecraft. Here, too, there is a logical error. The fact that some genius cannot come up with an explanation for something is irrelevant to deciding whether the correct explanation should be couched in terms of visitors from outer space. The choice is not either (A) we know this conventional explanation is correct, or (B) we must conclude that aliens have visited us.

It seems more reasonable to believe that the only reason we cannot explain these sightings by conventional means is because we do not have all the evidence; it is not because these sightings are probably due to alien visitations. If we had all the evidence, we would probably be able to explain the sightings by some conventional means. The fact that we cannot prove that Mr. and Mrs. Barney Hill were not abducted by aliens, does not support the hypothesis that they were [abducted by aliens](#).

Many UFOlogists think that if eyewitnesses such as Whitley Strieber, Betty and Barney Hill, or other alleged alien abductees are not insane or evil, then they cannot be deluded and are to be trusted with giving accurate accounts of alien abduction. Yet, it seems obvious that most sane, good, normal people are deluded about many things and not to be trusted about certain things. While it is generally reasonable to believe the testimony of sane, good, normal people with no ulterior motive, it does not follow that unless you can prove a person is deranged, evil, or a fraud that you should trust his or her testimony about any claim whatsoever. When the type of claim being made involves the incredible, additional evidence besides eyewitness testimony is required.

Would it be reasonable to convict a paraplegic of a crime on the basis of the testimony of ten pillars of the community who said they saw the defendant flying naked with angel's wings and snatch the purse from a little old lady? It is much more reasonable to believe that good people are doing evil things, or that they are deluded, than to believe a paraplegic could sprout wings and fly.

UFOlogists would rather follow their faulty logic than accept the conclusions of Project Blue Book, the U.S. Air Force report which states that "after twenty-two years of investigation...none of the unidentified objects reported and evaluated posed a threat to our national security." (It was in this Blue Book that [Edward Ruppelt](#) coined the term "UFO.") UFOlogists are unimpressed with the Condon Report, as well. Edward U. Condon was the head of a scientific research team which was contracted to the University of Colorado to examine the UFO issue. His report concluded that "nothing has come from the study of UFOs in the past 21 years that has added to scientific knowledge...further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby."

It is assumed by UFOlogists that the government, especially the CIA, is lying and covering up alien landings and communication. However, there is no evidence for this other than a general distrust of the government and the fact that many government officials have lied, distorted the truth and been mistaken when reporting to the general public. The CIA, however, has shown little interest in UFOs since about 1950, except to encourage UFOlogists to believe that reconnaissance flights might be alien craft. UFOlogists prefer another kind of lie to the government lie. They support the work of NBC, for example, which produced two dozen programs called "Project UFO," said to be based on Project Blue Book. However, unlike the Air Force, NBC suggested that there were documented cases of alien spacecraft sightings. The programs, produced by Jack Webb of *Dragnet* fame, distorted and falsified information to make the presentation look more believable. No UFOlogist took NBC to task for lying. To the skeptic, NBC was pandering to the taste of the viewing audience. Government agents lie for all sorts of reasons, but covering up alien landings does not seem to be one of them.

Most unidentified flying objects are eventually identified as hoaxes or astronomical events, aircraft, satellites, weather balloons, or other natural phenomena. In studies done by the Air Force, less than 2% of UFO sightings remain unidentifiable. It is more probable that with more information those 2% would be identified as meteors, aircraft, etc., than that they are alien spacecraft.

The reason no logical explanation seems credible to UFOlogists is probably because those making and hearing the reports either do not want to hear a logical explanation or they make little or no effort to find one. In any case, the fact that some pilots or scientists claim they cannot think of any logical explanations for some perceptual observations is hardly proof that they have observed alien spacecraft.

Finally, it should be noted that UFOs are usually observed by untrained skywatchers and almost never by professional or amateur astronomers, people who spend inordinate amounts of time observing the heavens above. One would think that astronomers would have spotted some of these alien craft. Perhaps the crafty aliens know that good scientists are skeptical and inquisitive. Such beings might pose a threat to the security of a story well-told.

See related entries on [alien abductions](#), [area 51](#), [cattle mutilations](#), [crop circles](#), [flying saucers](#), [Men in Black](#), and [Roswell](#).

further reading

reader comments

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- ["The Quest for Extraterrestrial Intelligence"](#) by Carl Sagan
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- [Penny Fisher's Stargazer Home Page](#)
- [An Interview with Philip J. Klass, the World's Leading UFO Skeptic](#) By Gary P. Posner
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[Rats blamed for mysterious cattle mutilations](#)

cattle "mutilations"

The term "mutilations" is used by [UFO](#) devotees to describe animal corpses with "unusual" or "inexplicable" features. What counts as "unusual" or "inexplicable" is just about any cut, mark, wound, excision, incision, swelling, distention, abrasion, contusion, scrape, bruise, or organ or blood absence. These "mutilations," we are told, are being done by bad aliens. No one has shown either that there are thousands of inexplicable animal deaths around the globe or that, if there are, they are related, much less that they are the result of alien experimentation. These facts, however, are no deterrent to those who are sure we are not alone. To them, these visitors from other worlds are not only responsible for the deaths and mutilations of thousands of cattle, horses, cats, and other domestic animals around the globe, they are also responsible for numerous [human abductions](#) for the purpose of experimental and reproductive surgery. Furthermore, some of these aliens are destroying [crops](#) around the globe in an effort to impress us with their artistic abilities or to communicate to us in strange symbols just how much they like our planet's cattle.



The belief that aliens have been killing and mutilating animals is supported by little more than an [argument to ignorance](#): Since there is a lack of evidence that aliens aren't responsible for the deaths or the post mortem conditions of the animals, it follows that the aliens are responsible. Defenders of this view reject the notion that there could be an earthly and naturalistic explanation. They are convinced that aliens need cow blood and organs for their experiments. What seems most convincing to the alien theorists is that "wounds" and missing organs such as the tongue and the genitalia seem completely inexplicable to them in any but mysterious terms, i.e., alien surgeons. Naturalistic explanations in terms of diseases such as lactic acidosis, predators (skunks, buzzards, weasels, etc.), insects (such as blowflies), and birds are to no avail, even though the most thorough examination of so-called cattle mutilations concluded there was nothing mysterious that needed explaining (Rommel 1980). It is useless to note that insects and animals often devour the vulnerable mucous membranes and the softer parts of dead animals such as the genitalia, instead of trying to burrow through the cowhide. It is pointless to note that incisions to a carcass by the teeth of predators or scavengers often resemble knife cuts. It is of no use to point out that there is little or no blood oozing from the wounds because blood settles, the heart does not pump when an animal is dead, and insects

devour the blood that does spill out. It is pointless to note that all the phenomena that seem unusual to those who favor the alien hypothesis are consistent with [lactic acidosis](#).

Typical of the alien surgeon accounts is that given in *An Alien Harvest* (1989) by Linda Moulton Howe, which includes photographs of wounds described as *weird, bizarre, suspicious* and *inexplicable*. She claims that her photos reveal

for the first time that tissue gathered from mutilator cuts in Arkansas on March 11, 1989, revealed the following characteristics under microscopic examination: 1) The line is pinpoint thin; 2) The line was subjected to high heat, probably 300 degrees Fahrenheit or above, leaving a hard and darkened edge; 3) The cuts were made rapidly, probably in two minutes or less, because there is no inflammatory cell destruction which typically begins in a few minutes after any trauma to tissue (See contrasting photomicrographs).

The photographs are considered to be "scientific proof" of unnatural happenings, even though the scientific community considers such photos to be of little significance. Even if the photos are not doctored, they need no explanation in terms of alien surgeons. But there is no point in suggesting anything earthly as probably being responsible for the cattle deaths or conditions, since those explanations have already been ruled out by such experts as Howe. The wounds are too weird, the lack of blood too bizarre, the coincidences too many, they say, for any naturalistic explanation.

Besides, if there were earthly explanations, one could not invoke the favored government conspiracy theory to juice up the story. Cattle mutilations are not only associated with UFO sightings, alien abductions, and crop circles, they are linked to black helicopter sightings as well. This suggests to the well-trained conspiratorial mind that our military forces are testing new weapons on the livestock of unsuspecting citizen ranchers. It shouldn't surprise anyone to find that the military thinks it is OK to experiment on cattle surreptitiously, since they've done it on people in the past. Another possibility, according to UFOlogists, is that the helicopters are UFOs disguised to appear as terrestrial craft. Some even think that the aliens have been in collusion with the Air Force for the past 30 years and that the animal mutilations are being performed by aliens with the full knowledge of our military. We allow it because of some sort of treaty the U.S. government supposedly signed with the aliens. You would think that such intelligent beings might have worked out a better arrangement.

Of course, inquiring minds want to know why beings with the intelligence and power to travel billions of miles to our planet would spend their time mutilating cows, experimenting on otherwise unremarkable people, or carving

up wheat fields. They need cow blood and glands for food and experiments. They are harvesting enzymes and are working on a genetic engineering project that will blend the Gray race (the aliens) with a Nordic race so they can interface with humans better. They are altering cow DNA to create some sort of artificial life form. They are carving up wheat fields with ever more elaborate designs to impress upon us how intelligent they are. Why would they come here and behave so preposterously? They're aliens and are beyond our comprehension. Nothing is preposterous for beings who are beyond our comprehension.

See **related entries** on [alien abductions](#), [crop circles](#), [flying saucers](#), [the men in black](#), and [UFOs](#).

further reading

[reader comments](#)

- [The Rommel Report](#)
- [Operation Mutilation: The Official Report](#) by Jon Elliston
- ["Cattle mutilations: A sci-fi whodunit with many suspects"](#) by Billy Cox
- [Alabama Cattle: Cops Mystified!!](#)
- [Rocky Barker reports from Idaho!!](#)
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 [Carlos Castaneda](#)

[Edgar Cayce](#) 

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The Urantia Book

According to The Urantia Book Fellowship (UBF), *The Urantia Book* (UB) is

an anthology of 196 'papers' indited [i.e., dictated] between 1928 and 1935 by superhuman personalities.... The humans into whose hands the papers were delivered are now deceased. The means by which the papers were materialized was unique and is unknown to any living person.

The UB Fellowship was founded in 1955 as the Urantia Brotherhood and is an association of people who say they have been inspired by the "transformative teachings" of the UB. According to the UBF, these "superhuman personalities" are from another world. They synthesized the work of more than 1,000 human authors in a variety of fields, including an "astronomical-cosmological organization of the universe" unknown to modern science and an elaborate extension (700 pages) on the life of Jesus. The UB also reveals that the "Universe is literally teeming with inhabited planets, evolving life, civilizations in various states of development, celestial spheres, and spirit personalities." In short, the UB is over 2,000 pages of "revelations" from superhuman beings which "correct" the errors and omissions of the Bible. "Urantia" is the name these alleged superhumans gave to our planet. According to these supermortal beings, Earth is the 606th planet in Satania which is in Norlatiadek which is in Nebadon which is in Orvonton which revolves around Havona, all of which revolves around the center of infinity where God dwells.

Martin Gardner is skeptical of the UBF's claims. He believes the UB has very real *human* authors. Originally, he says, the UB was the "Bible" of a cult of separatist Seventh Day Adventists, allegedly [channeled](#) by Wilfred Kellogg and edited by founder William Sadler, a Chicago psychiatrist. According to Gardner, in addition to an array of bizarre claims about planets and names of angels, etc., the Urantia Book contains many Adventist doctrines. Sadler died in 1969 at the age of 94 but his spiritual group lives on. Sadler got his start working for [Dr. John Harvey Kellogg](#), Adventist surgeon, health and diet author, and brother of cornflake king William Keith Kellogg. These are the same Kellogg brothers who were featured and lampooned in the movie ["The Road to Wellville."](#)

One can easily understand why Gardner suspects that the UB has human rather than superhuman origins. The book has all the traits of humanity upon it. For example, our human philosophers and theologians are mimicked perfectly in passages such as the following:

The philosophers of the universes postulate a Trinity of Trinities, an existential-experiential Trinity Infinite, but they are not able to envisage its personalization; possibly it would equvalate to the person of the Universal Father on the conceptual level of the I AM. But irrespective of all this, the original Paradise Trinity is potentially infinite since the Universal Father actually is infinite. ([Foreword XII, The Trinities](#))

Any medieval casuist would be proud of such writing and thinking.

Primary supernaphim are the supernal servants of the Deities on the eternal Isle of Paradise. Never have they been known to depart from the paths of light and righteousness. The roll calls are complete; from eternity not one of this magnificent host has been lost. These high supernaphim are perfect beings, supreme in perfection, but they are not absonite, neither are they absolute. ([Paper 27](#))

Some UBFers are attracted not so much to the theology, but to its great insights. Here are a few of those insights culled from [paper 100, "Religion in Human Experience."](#) Ask yourself if a superhuman being was necessary to reveal these gems.

The experience of dynamic religious living transforms the mediocre individual into a personality of idealistic power....

Give every developing child a chance to grow his own religious experience....

Religious experience is markedly influenced by physical health, inherited temperament, and social environment....

Spiritual development depends, first, on the maintenance of a living spiritual connection with true spiritual forces....

The goal of human self-realization should be spiritual, not material....

Human likes and dislikes do not determine good and evil; moral values do not grow out of wish fulfillment or emotional frustration....

Jesus was an unusually cheerful person, but he was not a blind and unreasoning optimist....

If the philosophical, theological or spiritual insights do not impress you, then you might want to consider the scientific insights of the UB, such as the resurrection of the pre-Adamite thesis of [Isaac de la Peyrère](#) (1596-1676), who felt compelled to believe that the Bible is the history of the Jews, not of

all people, and that in order to explain things such as racial differences the most reasonable hypothesis is that races of people existed before Adam and Eve..

Not everyone agrees with Gardner's claim that the *Urantia Book* was channeled by Wilfred Kellogg. [Ernest Moyer](#), for example, believes that the UB is a revelation from God that appeared "out of thin air" in fully developed form, exactly as we know it today. Moyer claims that Sadler was put through a lengthy process by our "planetary supervisors" in order to prepare him to accept the UB as true revelations. The process began by introducing Sadler to the Sleeping Subject (SS), whose nocturnal ramblings would later be understood to be preparatory messages from extraterrestrial "midwayers." According to Moyer, "SS was a member of the Chicago Board of Trade, a highly pragmatic, hard-nosed business man who did not believe in 'psychic' phenomena or any such nonsense." Why SS was selected for this task is unknown, but Moyer assures us that the midwayers never took over SS's mind and came only at night when SS was unconscious so as not to disrupt his life too much. Moyer contrasts this with the evil spirit who invaded [Edgar Cayce](#) during the daytime, a sure sign that Cayce was a false prophet. Sadler was selected, according to Moyer, because of his personality and training.

Moyer is convinced that we are on the verge of a nuclear holocaust and that the UB offers advice on how to save oneself from destruction and what to do afterward. This is all part of God's plan, as revealed to Sadler. According to Moyer, "God is using this technique to screen the human race."

It seems to me that God tried this once before with water instead of nuclear bombs. Well, if at first you don't succeed....

further reading

[reader comments](#)

- [New Age takes up residence on coast](#)
- [The Urantia Foundation](#)
- [The Urantia Book](#)
- [Seventh-day Adventist Home Page](#)
- [Ernest Moyer's "Origin of the Urantia Papers"](#)
- [Everything you ever wanted to know about Urantia Foundation, but were afraid to ask](#) (according to Norm Du Val)

[Gardner, Martin. *On the Wild Side* \(Amherst, N.Y.: Prometheus Books, 1992\), chapters 8, 13 and 14.](#)

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auras

An aura, according to New Age metaphysics, is a colored outline, or set of contiguous outlines, allegedly emanating from the surface of an object. Auras are not to be confused with the aureoles or halos of saints, which are devices of Christian iconography used to depict the radiance of light associated with divine infusion. In the New Age, even the lowly amoeba has an aura, as does the mosquito and every lump of goat dung. The aura supposedly reflects a supernatural energy field or life force that permeates all things. Human auras allegedly emerge from the [chakras](#). Under ordinary



circumstances, auras are only visible to certain people with special psychic power. However, with a little bit of training, or with a special set of Aura Goggles with "pinacyanole bromide" filters (available at your local New Age Head Shop), anyone can see auras. You may also use [Kirlian photography](#) to capture auras on film. At least that is what New Age spiritualists believe.

On the other hand, you may also see auras if you have a [migraine](#), a certain form of [epilepsy](#), a [visual system disorder](#) or a [brain disorder](#). Most aura training exercises involve staring at an object placed against a white background in a dimly lit room. What one sees is due to retinal fatigue and other natural perceptual processes, not the unleashing of hidden psychic powers. Something similar happens when you stare at certain [colored or black and white patterns](#). Vision is not the verbatim recording of the outside world. When looking at a colored object, for example, the eye does not transmit to the brain a continuous series of duplicate impressions. The brain itself supplies much of the visual perception. In short, even if auras are perceived, that is not good evidence that there is an energy field in the physical or supernatural world corresponding to the perceptions.

Some psychics claim that the specific colors in auras have specific meanings. [Edgar Cayce](#), for example, not only gave a meaning to each of seven colors, he also connected each color with a note on the musical scale, a planet in the solar system, and possible health disorders. [Robert Bruce](#), an aura expert in his own mind, objects to the notion that specific colors have specific meanings. In his view, even colors have auras, so what color clothing you have on will affect the color of your aura. According to Bruce,

The human aura is both an energy field and a reflection of the subtle life energies within the body. These energies make us what we are and in turn, are affected by our surroundings and life style. The aura reflects our health, character, mental activity and emotional state. It also shows disease - often long before the onset of symptoms.

The notion that auras reflect health is a common one among true believers. The problem is, what color reflects what condition? There is no consensus on what the colors mean, which makes it difficult if not impossible to devise an empirical test to determine whether there is any correlation between specific colors and specific diseases. In other words, reading auras is something like reading [Rorschach tests](#) with the added difficulty of each psychic potentially seeing a different pattern.

For every other object of color we have scientific devices which can measure any energy emitted from the object, as well as the wavelengths of light reflected from the object. Even though equipment exists capable of measuring extremely minute energy levels, no one has ever detected an aura or the alleged energy that gives rise to an aura using scientific equipment. Human tissue is about a million times less sensitive than something like a PET scanner, yet we are supposed to believe that some special people can "see" what cannot otherwise be detected. Or, we are supposed to believe that we all have the power to see auras but somehow we have repressed or never trained our psychic selves to unleash the power within.

Furthermore, the best aura reader in the West was tested before a live television audience and failed miserably. The Berkeley Psychic Institute (BPI) sent their top aura reader for a chance to win \$10,000 if she could prove her powers. She agreed that the devised test was a fair and accurate. The test was televised on a program hosted by Bill Bixby. [James Randi](#) put up the \$10,000. The psychic was presented with about twenty people on stage and was asked if she could see their auras. She said that she could see the auras, they all had one and they emanated at least a foot or two above each person's head. The twenty aura-wearing people then went offstage. A curtain was lifted, revealing a number of partitions behind which only some of the twenty people were standing. Thus, Bixby and the psychic were looking at twenty partitions but only several of them had a person behind it. The psychic was asked if she could see any auras creeping up above the partitions. She said she could. To get her ten grand all she had to do was correctly identify each partition that had a person behind it. She was to do this by seeing each person's aura above the partition. The audience was given an aerial camera view of the proceeding. Well, the psychic claimed that she saw an aura above all the partitions and that there was a person behind each partition. The partitions were removed, revealing about 6 people behind the partitions. The psychic didn't even seem surprised. She might console herself that 6 out of 20 is not bad in a hostile arena.

Of course, the test only demonstrates the lack of aura reading power of one person, not that there is no such thing as an aura or that auras are not indicative of mental, emotional and physical health or sickness. However, Randi's offer is still open to any psychic who wants to try it, except that now the prize is over \$1,000,000. Why is there not a line of psychics outside Randi's house? If what the psychics say is true about auras and reading them, taking this money would be easier than taking candy from a baby. Even if there are no poor psychics who need the money, they might still demonstrate their powers and give the prize to their favorite charity.

The Berkeley Psychic Institute has a special place in my heart. One day a few years ago, I noticed a poster from BPI on a bulletin board near my office at Sacramento City College. In addition to information about BPI, the poster exclaimed: *You may not be psychotic, you may be psychic!* I wrote a note to our school psychologist who handled the "psychologically challenged" at the time. I told her I was concerned about the poster. She wrote me back and asked me how in the world did I know that she had attended BPI. (If I occasionally express a bit of disdain for psychologists and therapists, please keep in mind that I have had a traumatic adulthood, dotted with experiences such as this one.)

I was familiar with BPI from their work at an annual local affair. Every year in May at the University of California at Davis there is a Whole Earth Festival reminiscent of the sixties. For three days the campus is filled with tie-dyed shirts, psychedelic music, incense burning, children with flowers in their hair, marijuana smoking, gurus, massages with scented oils, handcrafts, the latest in New Age healing and religion, karma patrol (for those who overdose on drugs), etc. The Aura Reading Booth is run by BPI. For a few dollars, one sits in a chair in the great outdoors with the music playing, the incense wafting, and people swaying while someone from BPI reads your aura. Actually, the BPI psychic uses colored crayons to fill in a piece of paper pre-printed with a series of outlines in the vague shape of a person. Then the psychic tells you what your aura reveals. They only charge a few dollars and for the longest time I considered their activity a harmless parlor game. But now I feel I should put up posters near their booth saying, *If you see auras, you may not be psychic; you may have a brain or vision disorder. See your physician ASAP.*

See related entries on [aura therapy](#) and [Kirlian photography](#).

further reading

- [Aura Photography: A Candid Shot](#) by Joe Nickell, Skeptical Inquirer, May/June 2000
- [Don Lindsay's "Human Auras and Energy Fields"](#)
- [The Joy of Visual Perception: A Web Book](#) by Dr. Peter K.Kaiser, York University, Canada, (retired), especially his [Physics of the Visual Stimulus](#)
- [Perception](#) (Evan Pritchard, Ph.D., Department of Psychology, University of Winnipeg)
- [Illusionworks](#)
- [Illusions](#) (Dave Landrigan, Ph.D., Department of Psychology, University of Massachusetts Lowell)

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[aura therapy](#) 

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Charles Tart (1937-)

"Anyone who thinks [the brain](#) is the total answer is ignorant." -- --

Charles Tart

A [parapsychologist](#) with a Ph.D. in psychology (University of North Carolina, 1963), known for his work on [lucid dreams](#), [astral projection](#), LSD, marijuana, and [ESP](#). After retiring from the University of California at Davis psychology department, he joined the [Institute of Transpersonal Psychology](#) in Palo Alto and spent a year developing a curriculum for [Robert Bigelow's](#) endowed [Chair of Consciousness Studies](#) at the University of Nevada at Las Vegas. Bigelow, a wealthy Las Vegas businessman with a penchant for funding paranormal research, gave nearly \$4 million to UNLV to teach courses on such subjects as dreams, meditation, hypnosis, out-of-body experiences, telepathy, and the ever-popular subject among college students, drug-induced altered states of consciousness. (In 1971, Tart authored *On Being Stoned: A Psychological Study of Marijuana Intoxication*.)

Early in his career, Tart edited a psychology text, *Altered States of Consciousness* (1969) and authored several of the articles in his anthology. He defined an [altered state of consciousness](#) (ASC) as one in which an individual "clearly feels a *qualitative* shift in his pattern of mental functioning." For those who prefer a behaviorist definition, he offered the following: "an ASC is a hypothetical construct invoked when an S's behavior (including the behavior of verbal report) is radically different from his ordinary behavior." Tart believes that Eastern Yoga and Zen had long been tapping into ASCs and that there was something mystical or spiritual, something superior or higher about these altered states of consciousness. For Tart, ASCs are a gateway to a higher consciousness, to the realm of the [paranormal](#) and the spiritual.

Tart considers a hypnotized person to be in an altered state, and one of the more unusual uses of [hypnosis](#) is described in his article "Psychedelic Experiences Associated with a Novel Hypnotic Procedure, Mutual Hypnosis." Tart's scientific experiment involved two people, or Ss, called A and B. Tart had A hypnotize B. Then, while under hypnosis, B hypnotized A. Then A would deepen B's hypnotic state; then B would deepen A's hypnotic state, "and so on." He wanted to see if he could increase the depth of hypnosis a given S could reach by having S *en rapport*, defined as "the special relationship supposed to exist between hypnotist and S." Says Tart: "I reasoned that if *rapport* was greatest in deep hypnotic states, a technique which markedly increased *rapport* would likely increase the depth of hypnosis" (292). Tart concluded: "Although this report is based on only two Ss, the results with them were dramatic enough to warrant considerable

research on mutual hypnosis” (307). He notes that mutual hypnosis “might offer a way to produce psychedelic experiences in the laboratory without the use of drugs and with more flexibility and control than is possible with drugs” (308).

Tart explains how he first got interested in the paranormal in the following story told at a talk he gave in Casper, Wyoming:

There was a time, years ago, when I was highly skeptical of any paranormal claims of any kind. One of the things that convinced me that there must be something to this is a strange experience that I personally went through. It was wartime. I was at Berkeley, California, and everybody was working overtime....the young lady who was my assistant at the time worked with me until very late this one night. She finally went home; I went home. Then the very next day she came in, all excited....She reported that during this night she had suddenly sat bolt upright in her bed, convinced that something terrible had happened. “I had a terrible sense of foreboding,” she said, but she did not know what had happened. “I immediately swung out of bed and went over to the window and looked outside to see if I could see anything that might have happened like an accident. I was just turning away from the window and suddenly the window shook violently. I couldn’t understand that. I went back to bed, woke up the next morning and listened to the radio.” A munitions ship at Port Chicago had exploded. It literally took Port Chicago off the map. It leveled the entire town and over 300 people were killed....She said she had sensed the moment when all these people were snuffed out in this mighty explosion. How would she have suddenly become terrified, jumped out of bed, gone to the window, and then - from 35 miles away, the shock wave had reached Berkeley and shook the window? (Randi 1992)

There is no need to perceive this event as paranormal, according to James Randi, who tape-recorded the story. A shock wave travels at different speeds through the ground and through the air. The difference over 35 miles would be about 8 seconds. Most likely the shaking earth woke up the young lady in a fright and 8 seconds later the window shook. She and Tart assumed that the explosion took place when the window shook, making her experience inexplicable by the known laws of physics. This explanation only makes sense, however, if one ignores the known laws of physics.

Tart once wrote, “The implications of ESP for understanding human nature are enormous, and call for extensive, high quality scientific research” (letter to the *New York Review*, February 19, 1981). Yet, Tart and other parapsychologists seem to have made little headway in justifying the first claim or in living up to the second (Randi 1982, 153; Gardner 1981, 211).

See related entry on [Raymond Moody](#).

See related entries on [astral projection](#), [esp](#), [hypnosis](#), [Raymond Moody](#), [paranormal](#) (where there is a very telling anecdote about Tart) and [parapsychology](#).

further reading

- ["UNLV recruits authority in ESP"](#)
- [The NeXt Files](#)

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[What's the Deal With the Bright Light You See Before Dying? By Brendan I. Koerner \(Slate\) October 1, 2002](#)

['Near death experiences' probed - 11/30/01](#)

near-death experience (NDE)

One study found that 8 to 12 percent of 344 patients resuscitated after suffering cardiac arrest had NDEs and about 18% remembered some part of what happened when they were clinically dead (*Lancet*, December 15, 2001).*

A wide array of experiences reported by some people who have nearly died or who have thought they were going to die. There is no single shared experience reported by those who have had NDEs. Even the experiences of most interest to parapsychologists--such as the "mystical experience," the "light at the end of the tunnel" experience, the "life review" experience, and the out-of-body experience--rarely occur together in near-death experiences. However, the term NDE is most often used to refer to an OBE occurring while near death.

Two M.D.s who have popularized the idea that the NDE is proof of life after death are Elizabeth Kübler-Ross and [Raymond Moody](#). The former is well known for her work on death and dying. The latter has written several books on the subject of life after life, and has comprised a list of features he considers to be typical of the near-death experience. According to Moody, the typical NDE includes a buzzing or ringing noise, a sense of blissful peace, a feeling of floating out of one's body and observing it from above, moving through a tunnel into a bright light, meeting dead people, saints, Christ, angels, etc.; seeing one's life pass before one's eyes; and finding it all so wonderful that one doesn't want to return to one's body. This composite experience is based on interpretations of [testimonials](#) and anecdotes from doctors, nurses, and patients. Characteristic of Moody's work is the glaring omission of cases that don't fit his hypothesis. If Moody is to be believed, no one near death has had a horrifying experience.

There are numerous reports of bad NDE trips involving tortures by elves, giants, demons, etc. Some [parapsychologists](#) take these good and bad NDE trips as evidence of heaven and hell. They believe that some souls actually leave their bodies and go to the other world for a time before returning to their bodies. If so, then what is one to conclude from the fact that most people near death do not experience either the heavenly or the diabolical? Is that fact good evidence that there is no afterlife or that most people end up in some sort of limbo? Such reasoning is on par with supposing that dreams in which one appears to oneself to be outside of one's bed are to be taken as evidence of the soul or mind actually leaving the body during sleep.

What little research there has been in this field indicates that the experiences Moody lists as typical of the NDE may be due to brain states triggered by

cardiac arrest and anesthesia (Blackmore 1993). Furthermore, many people who have not been near death have had experiences that seem identical to NDEs. These mimicking experiences are often the result of psychosis (due to severe neurochemical imbalance) or drug usage, such as hashish, LSD, or [DMT](#).

Moody thinks that NDEs prove the existence of life after death. Skeptics believe that NDEs can be explained by neurochemistry and are the result of brain states that occur due to a dying, demented or drugged brain. For example, neural noise and retino-cortical mapping explain the common experience of passage down a tunnel from darkness into a bright light. According to [Susan Blackmore](#), vision researcher Dr. Tomasz S. Troscianko of the University of Bristol speculated:

If you started with very little neural noise and it gradually increased, the effect would be of a light at the centre getting larger and larger and hence closer and closer....the tunnel would appear to move as the noise levels increased and the central light got larger and larger....If the whole cortex became so noisy that all the cells were firing fast, the whole area would appear light (Blackmore 1993, 85).

Blackmore attributes the feelings of extreme peacefulness of the NDE to the release of endorphins in response to the extreme stress of the situation. The buzzing or ringing sound is attributed to [cerebral anoxia](#) and consequent effects upon the connections between brain cells (op. cit. 64).

Dr. Karl Jansen has reproduced NDEs with ketamine, a short-acting, hallucinogenic, dissociative anaesthetic.

The anaesthesia is the result of the patient being so 'dissociated' and 'removed from their body' that it is possible to carry out surgical procedures. This is wholly different from the 'unconsciousness' produced by conventional anesthetics, although ketamine is also an excellent analgesic (pain killer) by a different route (i.e. not due to dissociation). Ketamine is related to phencyclidine (PCP). Both drugs are arylcyclohexylamines - they are not opioids and are not related to LSD. In contrast to PCP, ketamine is relatively safe, is much shorter acting, is an uncontrolled drug in most countries, and remains in use as an anaesthetic for children in industrialised countries and all ages in the third world as it is cheap and easy to use. Anaesthetists prevent patients from having NDE's ('emergence phenomena') by the co-administration of sedatives which produce 'true' unconsciousness rather than dissociation.*

According to Dr. Jansen, ketamine can reproduce all the main features of the NDE, including travel through a dark tunnel into the light, the feeling that one is dead, communing with God, hallucinations, out-of-body experiences, strange noises, etc. This does not prove that there is no life after death, but it does prove that an NDE is not proof of an afterlife.

While neural activity might explain bright lights, buzzing noises, and hallucinations, there are some aspects of some NDEs that still remain puzzling. Some people who are thought to be dead, but are actually just unconscious, recover and remember things like looking down and seeing their own bodies being worked on by doctors and nurses. They recall conversations being held while they were "dead." Of course, they weren't dead at all, but they feel as if their mind or soul had left their body and was observing it from above. Those who have had such experiences--and they are many--often find them life-altering and defining moments. They are convinced such experiences are proof of life after death by a disembodied consciousness. But are they? It is possible that a person may appear dead to our senses or our scientific equipment but still be perceiving. The visual and auditory perceptions occurring while unconscious-but-perceiving may be produced by a variety of neuronal mechanisms. It is possible that the soul leaves the body, but it is not necessary to posit a soul to explain these experiences.

[Raymond Quigg Lawrence](#) (*Blinded by the Light*) thinks that NDEs are the work of [Satan](#). Perhaps. Or, they may be telepathic communications from doctors, nurses, or others in attendance when the subject is near death. Or, they may be mixed memories composed after waking up and hearing others talk about what was happening while one was near death. Or, they may be recollections of subconsciously recorded data overheard while in a groggy state. At this point in our knowledge, to claim that NDEs provide proof that the soul exists independently of the body seems very premature.

See related entries on [astral projection](#), [out-of-body experiences](#), and [remote viewing](#).

further reading

[reader comments](#)

- [Brushes With Death - Scientists Validate Near-Death Experiences \(Jan 8, 2002\)](#)
- [Near-Death Experiences: In or out of the body?](#) by Susan Blackmore, *Skeptical Inquirer* 1991, 16, 34-45.
- ["Using Ketamine to Induce the Near-Death Experience: Mechanism of](#)

[Action and Therapeutic Potential" and The Ketamine Model of the Near Death Experience:](#)

[A Central Role for the NMDA Receptor](#) by Dr. Karl Jansen

- [Does Ketamine Produce NDEs?](#)
- [Have You Seen "The Light?"](#) by Robert Baker
- ["Patients could suffer from careless whispers"](#)
- [Near-Death Experiences Links](#)
- [The Case Against Immortality](#) by Keith Augustine
- [La vie et la mort](#) par Pascal Lapointe [le témoignage de Laura Darlene Lansbury]

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[neurolinguistic programming](#)



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[Brain Cited in 'Out-of-Body' Claims by Joseph B. Verrengia, AP Science Writer, September 18, 2002](#)

[Electrodes trigger out-of-body experience from Nature Sept. 19, 2002](#)

[Hit The O-Spot For Out-of-Body Had an out-of-body experience? Scientists believe they know why BY JEFFREY KLUGER Time.com 9/26/2002](#)

out-of-body experience (OBE)

Surveys show that about 15% to 20% of the population have had an OBE at some time during their life (Blackmore, 1982).

A feeling of departing from one's physical body and observing both one's self and the world from outside of one's body. The experience is quite common in [dreams](#), daydreams, and [memories](#), where we quite often take the external perspective. Some people experience an OBE while under the influence of an anesthetic or while semi-conscious due to trauma. Some people have an OBE while under the influence of drugs. OBEs have been induced by electrically stimulating the right angular gyrus (located at the juncture of the temporal and parietal lobes).^{*} Finally, some people experience an OBE when they are near death ([near-death experiences](#) or NDEs).

Susan Blackmore, a former parapsychologist with heavy skeptical leanings, is considered one of the world's leading authorities on OBEs and NDEs. She had an OBE while attending Oxford University during the early 1970s. By her own admission she "spent much of the time stoned, experimenting with different drugs" (Shermer 1998). During her first year at Oxford she had an OBE after several hours on the [Ouija board](#) while stoned on marijuana. The experience also occurred during a period of her life when sleep deprivation was common for her. She describes herself as having been in "a fairly peculiar state of mind" when she had the OBE (ibid.).

In her OBE, Blackmore went down a tunnel of trees toward a light, floated on the ceiling and observed her body below, saw a silver cord connecting her floating [astral body](#), floated out of the building around Oxford and then over England, and finally across the Atlantic to New York. (In *An Unquiet Mind*, [Kay Redford Jamison](#), who suffers from bipolar disorder, describes a similar voyage to Jupiter while she was enjoying the manic phase of her mental illness.)

After hovering around New York, Blackmore floated back to her room in Oxford where she became very small and entered her body's toes. Then she grew very big, as big as a planet at first, and then she filled the solar system and finally she became as large as the universe.

Blackmore attributes her experience to peculiar brain processes such as might cause "neuronal disinhibition in the visual cortex," which is her explanation for hallucinations and NDEs. She did not consider investigating abnormal psychology, where she would find many similar cases of Alice-in-Wonderland voyagers. Instead, she says that she devoted her study to [astral](#)

[projection](#) and [theosophy](#), hoping to find an answer. Her experience with the silver cord is right out of traditional occult literature on astral projection.

One explanation of the OBE is that consciousness is a separate entity from the body ([dualism](#)) and can exist without the body and the body without it. The disembodied consciousness can 'see,' 'hear,' 'feel,' 'taste' and 'smell'. Some speculate that 'mind', 'spirit', or 'consciousness' can operate over vast distances and perceive objects by some mysterious power not yet discovered. Others think that they are due to brain states triggered by disease or stress.

If minds were leaving bodies, one would expect that there would be minds out of their bodies everywhere. You'd think that there'd be a mix-up occasionally and one or two souls or astral bodies would come back to the wrong physical bodies, or at least get their silver cords tangled up. One would expect some minds to get lost and never find their way back to their bodies. There should be at least a few mindless bodies wandering or lying around, abandoned by their souls as unnecessary baggage. There should also be a few confused souls who don't know who they are because they're in the wrong bodies.

My suspicion is that the neuroscientists are on the right track, and that someday we will understand the pathology of the OBE. That is not to say that these experiences are not real. For example, one of my students has been having OBEs since she was seven. She's now 19 and says she has six or more OBEs a year. They only occur at night when she is in bed and they are all spontaneous. Even though she was, and remains, frightened by these experiences (because she fears she is dying and will not return to her body), she told me she used to think everybody had them. She's been to heaven and has seen Jesus and her guardian angels (she says we all have *two*). They were very large and dressed in white, though Jesus wore a purple sash. She told me she's very spiritual and suffers from migraines but has never seen a doctor about them because her family doesn't believe one should go to a doctor unless one is at death's door. Does her mind leave her body? Or is her brain playing tricks on her? I strongly suspect the latter, but even if it were discovered that she has a brain abnormality that is causing both her migraines and her OBEs, it is still theoretically possible that her mind leaves her body and that her experiences are not hallucinations. I suppose it is also theoretically possible that her experiences are paranormal. Maybe she's getting [telepathic](#) messages from her mother, who is very spiritual, too. Either way, these experiences seem to define her existence.

See related entries on [astral projection](#), [near-death experiences](#) and [remote viewing](#).

further reading

[reader comments](#)

- [Keith Augustine's essays](#)
- [Jouni A. Smed's OBE-FAQ](#)
- [Robert Monroe](#) (His doctor could find nothing was wrong with him, even though he was clearly hallucinating. He should have gotten a second opinion.)

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[Sacks, Oliver W. *The Man Who Mistook His Wife for a Hat and Other Clinical Tales* \(New York: Harper Perennial Library, 1990\).](#)

[Siegel, Ronald K. *Fire in the Brain : Clinical Tales of Hallucination* \(New York: Dutton, 1992\).](#)

Shermer, Michael. "A Mind Out of Body," in *Skeptic*, vol. 6 No. 3, 1998, pp.72-79.

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sleep paralysis

Sleep paralysis is a condition that occurs in the state just before dropping off to sleep ([the hypnagogic state](#)) or just before fully awakening from sleep ([the hypnopompic state](#)). The condition is characterized by being unable to move or speak. It is often associated with a feeling that there is some sort of presence, a feeling which often arouses fear but is also accompanied by an inability to cry out. The paralysis may last only a few seconds. The description of the symptoms of sleep paralysis is similar to the description many alien abductees give in recounting their abduction experiences. Sleep paralysis is thought by some to account for not only many [alien abduction](#) delusions, but also other delusions involving [paranormal](#) or supernatural experiences.

Sleep paralysis is something many people experience once or twice in a lifetime but it is a frequent occurrence of those suffering from [narcolepsy](#).

further reading

[reader comments](#)

- [Sleep Paralysis Page](#)
- [Sleep Paralysis and Associated Hypnagogic and Hypnopompic Experiences](#)
- [Abduction by Aliens or Sleep Paralysis?](#) Susan Blackmore
- [My experience with sleep paralysis](#) by Anonymous
- [Sleep disorders](#) by Dr Alison Bentley, School of Physiology, Wits University, South Africa
- [Dr. William C. Dement's page on sleep paralysis](#)
- [Waking up to terror](#) - ABC news

[Dement, William C. *The Promise of Sleep: A Pioneer in Sleep Medicine Explores the Vital Connection Between Health, Happiness, and a Good Night's Sleep* \(Dell Books, 2000\).](#)

[Hufford, David J. *The Terror That Comes in the Night : An Experience-Centered Study of Supernatural Assault Traditions* \(University of Pennsylvania Press, 1989\).](#)

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hypnagogic state

The hypnagogic state is that state between being awake and falling sleep. For some people, this is a time of visual and auditory hallucination.

See related entries on [alien abductions](#), [the hypnopompic state](#) and [sleep paralysis](#).

further reading

- [Sleep Paralysis and Associated Hypnagogic and Hypnopompic Experiences](#)



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hypnopompic state

The hypnopompic state is the transition state of semiconsciousness between sleeping and waking. For some people, this is a time of visual and auditory hallucination.

See related entries on [alien abductions](#), [the hypnagogic state](#) and [sleep paralysis](#).

further reading

- [Sleep Paralysis and Associated Hypnagogic and Hypnopompic Experiences](#)

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[hypnagogic state](#)

[hypnosis](#)



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[Crop circle secrets revealed](#) Oct. 8, 2002

[Harvesting a hoax: The new movie 'Signs' exploits the corny crop-circle phenomenon](#) by Jami Bernard

[Experts 'amazed' by crop circle designs](#) BBC July 19, 2002

crop circles

Crop circles are geometric patterns, some very [intricate and complex](#), appearing in fields, usually wheat fields and usually in England. Most, if not all, of them are probably due to pranksters, such as Doug Bower and David Chorley who, in 1991, admitted to hoaxing approximately 250 circles over many years. There is a segment of the population that believes the circles are messages from alien spacecraft. Some maintain that the aliens are trying to communicate with us using ancient Sumerian symbols or symbolic representations of alien DNA. Those who engage in such serious study and theorizing about crop circles are known as *cerealogists* (after Ceres, the Roman goddess of agriculture and fertility) or *croppies*.



Even scientifically minded people have been brought into this fray. They have wisely avoided the thesis that aliens have been carving out messages in crop fields. But they have stretched their imaginations to come up with theories of vortexes, ball lightning, plasma and other less occult explanations involving natural forces such as wind, heat, or animals. However, when looking for a naturalistic explanation of weird things we should never omit from our checklist the possibility that the phenomenon we are studying is a hoax, such as [Pitdown Man](#) and the [Cardiff Giant](#).

Had crop circles existed in the thirteenth century, they would have been attributed to [Satan](#), who was said to have been responsible for many weird happenings as well as for many unweird things, such as the construction of Stonehenge and Hadrian's wall between England and Scotland. It was believed by many that the ancients could not possibly have accomplished such feats on their own. Today, Satan's power as an explanation for weird or wondrous things has been usurped by [aliens](#).

See **related entries** on [alien abductions](#), [cattle mutilations](#), [flying saucers](#), and [UFOs and ETs](#).



"Earth is Missing"
© 2001 [Peter Sorensen](#)

This circle is not a hoax. It was done by Matt Williams and friends for a film.

further reading

[reader comments](#)

- [From Sci.Skeptic FAQ](#)
- [The Crop Circle Connector](#)
- [Critchley's Crop Circle Connections](#)
- [Circlemakers' Gallery](#)
- ["Crop Circles ... or just Crap Circles ?"](#)
- [Levengood's Crop-Circle Plant Research](#) by Joe Nickell
- [Hollywood Fertilizes Profits with Crop Circles](#) (CSICOP press release in response to the movie *Signs*)
- [Crop Circle Confession](#) by Matt Ridley
- [Wheat Graffiti](#) by Daniel Pinchbeck
- [CSICOP's Library & Research Center on Crop Circles](#)
- [CSICOP's Crop Circle Report](#)



The original was done at Longwood Warren, near Winchester in 1995. [Some prefer the original.](#)

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Nickel, Joe. "The Crop Circle Phenomenon: An Investigative Report," in *The Skeptical Inquirer* (Winter, 1992).

[Schnabel, Jim, *Round In Circles: Physicists, Poltergeists, Pranksters and the Secret History of the Cropwatchers* \(Penguin: London, 1994\).](#)

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Last updated 04/06/03

 [creationism](#)

[Aleister Crowley](#) 

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flying saucers

On June 24, 1947, Kenneth Arnold claimed that he'd seen nine "crescent shaped" aircraft flying erratically at incredible speeds near Mount Rainier. He said they reminded him of saucers skimming over water. An editor of the *Eastern Oregonian* reported that Arnold saw "round" objects. Other reports noted "disc-shaped" objects. Within a few weeks, there were hundreds of reports nationwide of sightings of flying "saucers".



The fact that so many [UFO](#) and [alien](#) sightings conform to rather standard depictions is taken by some as evidence that the observers are not mistaken. They must be seeing the same things. It is more likely that they see what they see because of their expectations, which are based on stereotypes created largely by the mass media. In this respect, and maybe some others as well, UFO an alien sightings might be compared to [Santa Claus](#) sightings.

See related entries on [alien abductions](#) and [UFOs](#).

further reading

[reader comments](#)

- [The Klass Files \(Archive of Skeptics UFO Newsletter\)](#)

[Frazier, Kendrick. \(ed.\) *The Ufo Invasion : The Roswell Incident, Alien Abductions, and Government Coverups* \(Prometheus, 1997\).](#)

[Gardner, Martin. *Fads and Fallacies in the Name of Science* \(New York: Dover Publications, Inc., 1957\),](#)

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[firewalking](#)



[Forer effect](#)

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the Men in Black (M.I.B.)

The **Men in Black** are believed to be very strange creatures, perhaps aliens or government agents, who visit [UFO](#) witnesses and warn them not to tell anyone about their UFO experiences.

[John Keel in *The Mothman Prophecies*](#) (1975) talks about the M.I.B., as did Gray Barker in *They Knew Too Much About Flying Saucers* (1956). The M.I.B. are said to favor older model dark Cadillacs. They don't like to be photographed, though they have been reported to dress in black. Their mystique may soon wear off, however, as [a film, a TV series, a magazine and a video game](#) have been developed around their strange antics.

John Sherwood (a.k.a. Dr. Richard H. Pratt) has come clean about the role Gray Barker, head of Saucerian Publications, played in perpetuating the myth of the M.I.B. "*They Knew Too Much About Flying Saucers* made the Men In Black feared within UFO circles during the late 1950's and 1960's," claims Sherwood, but the book was impure fiction, written purely to make money with little concern for facts. It was Barker who published a 17-year old Sherwood's *Flying Saucers are Watching You*, which the author now claims was his "only corrupt journalistic experience," i.e., he wrote with little concern for the difference between fact and fiction. Sherwood admits that he encouraged the hoax by playing along when UFOers tagged him as having been silenced by the M.I.B.

further reading

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[The Skeptic's Refuge](#)

Mass Media Bunk features news stories or articles in the mass media which provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events.

Readers are encouraged to share any mass media bunk that crosses their paths. Send your *Mass Media Bunk* material to:

btcarrol@skepdic.com

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

1

February 27, 1996. *Nova*, Alien Abductions.

It wouldn't be fair to characterize the *Nova* program on [alien abductions](#) as pure bunk, but this program definitely did not live up to a very high standard of scientific scrutiny of extraordinary claims. It was to be expected that *Nova* would give advocates such as John Mack and Budd Hopkins a chance to state their case. What I did not expect was to see an hour-long program devoted mostly to the incompetent, if well-meaning, Mr. Hopkins. The cameras followed Hopkins through session after session with a very agitated, highly emotional "patient" and then on to Florida as he cheerfully helped a seemingly unstable Florida woman inculcate in her children the belief that they had been abducted by aliens. In between more sessions with more of Hopkin's "patients," we had to listen to him again and again give plugs for his books and his reasons for showing no skepticism at all at very bizarre claims of humans being experimented on by aliens.

Dr. Mack was also given a very good amount of time to defend his work as a Harvard psychiatrist who cannot come up with a better explanation than that these people who think they've been abducted by aliens have really been abducted by aliens. He lists as reasons for believing the accounts are true the fact that his patients are not mentally ill (why does he treat them, then?), that they are otherwise normal people (that's a debatable point I might have granted him before I heard some of Hopkin's patients tell their stories), that they have nothing to gain by making this stuff up (no mention was made of what he and Hopkins have to gain by encouraging these people to come up with more details of their "abductions" rather than start from the assumption that they are probably deluded), and that their stories are very similar (which could well be because they've all read the same stories and seen the same movies).

The skeptics did have their say, but my guess is that they were given one minute for every four or five given to the abductee advocates. Carl Sagan, looking very old and wan, spoke eloquently, if briefly, to the issue of scientific skepticism and the lack of good evidence that aliens from outer space are here amongst us, much less kidnapping some of our most imaginative and emotional citizens for reproductive experimentation. He noted that anecdotes are all we have for this belief and anecdotes are not good evidence for scientific proofs.

Elizabeth Loftus was brought in for a few minutes to comment on memory construction in patients by "therapists" and to evaluate Hopkin's method of "counseling" the children whose mother was encouraging them to believe they'd been abducted by aliens. Dr. Loftus noted that Hopkins did a lot of encouraging to

remember more details, as well as giving a lot of verbal rewarding when new details were brought forth. She characterized the procedure as "risky," because we don't know what effect this "counseling" will have on the children. I think we can safely predict one effect: they will grow up thinking they've been abducted by aliens and this belief will be so embedded in their memory that it will be practically impossible to get them to even consider the possibility that the "experience" was planted by their mother and cultivated by characters like Hopkins.

Several other skeptics were also interviewed. A psychologist offered the explanation that the abductees were deluded, but no attempt was made to explore very deeply why this particular delusion is so widespread. Another was a physicist who echoed some of Sagan's concerns about the lack of empirical evidence for the claim of alien visitation. (All these people over so many years in so many countries and not one souvenir! How inhuman!) Another skeptic interview was a Michael Persinger, a psychologist who offered an explanation in terms of brain states which he apparently was trying to duplicate in a lab.

I don't believe that everything in the universe can be explained, but I think the viewers of *Nova* deserve more than brief attempts of one or two skeptics to account for so many people having the same delusion. Otherwise, Mack's view will seem reasonable to many people: since there aren't any good explanations in terms of pathology, the best explanation is that the anecdotes of alien abduction are based on real experiences.

There was a beginning of an explanation in noting that the similarity of accounts counts *against* rather than for their being accounts of real events. Too much similarity indicates they've been influenced by the same written and visual sources, stories and movies. But the next step is to try to account for why these people are susceptible to these stories and why it is easy to get them to develop and expand them. It may seem to be begging the question to assume that a "normal" person would be skeptical of such stories and rather than be tempted to accept them and re-evaluate their own experience in terms of them, would find them unbelievable on their face. But I think it is a reasonable assumption to make. Thus, despite the fact that the abductees seem "normal," I would take as a working hypothesis that they are not normal, reasonable people, despite the fact that they may function well-enough in society or in their circle of family and friends. I would not go so far as to call such people functional psychotics, but I think the term "functional delusional" would be fairly accurate. That is a term I would also use to describe many religious believers. I do not think it is an accident that the beliefs of abductees and religious devotees seem very similar. A person can function "normally" in a million and one ways and hold the most irrational religious beliefs imaginable. Since religion is a culturally accepted delusion, this is not seen as being very strange and little effort is put forth to try to find out why people believe the religious stories they believe. But when someone holds a view outside of the culture's accepted range of delusional phenomena, there seems to be a need to "explain" their beliefs. There is, of course, one aspect of the abductees' beliefs that differs from most, but certainly not all, religious believers: the belief is based on an "experience." Here, the closest analogue in religion seems to be the mystical experience. Thus, it might be best to start with the assumption that abductees are like mystics: they believe they have experienced something denied to the rest of us. The only evidence for their experience is their own belief that it happened and the account they give of it. There is no other evidence.

The comparison of abductees with mystics is not as farfetched as it might at first seem. Think of the history of mysticism. The accounts of mystical experiences fall into two basic categories: the ecstatic and the contemplative. Each type of mysticism has its own history of accounts, its anecdotes and testimonials. And, like the stories of abductees, the stories of each type of mystic are very similar, too. Ecstatic mystics tend to describe their indescribable experiences in terms clearly analogous to sexual ecstasy. Going from darkness into the light recalls the birth experience. The contemplative mystics describe their experience of perfect peace and bliss in ways that anyone who has had a good night's sleep could identify with. Or, in the more advanced stages of mysticism, the experience is clearly analogous to death: a state of total unity, i.e., no diversity, no change, no anything. In short, the fact that mystical experiences are described in similar ways by mystics born in different countries and in different centuries, is not evidence of the authenticity of their experiences, but speaks more to the uniformity of human experience. Every culture knows of birth, sex and death.

On the other hand, the ecstatic and contemplative accounts of mystics may be similar due to similar brain states associated with bodily detachment and a sense of transcendence. The language and symbols of birth, sex and death may be nothing but analogues for brain states. Abductees may be describing similar hallucinations due to similar brain states.

Even more to the point might be the similarity of accounts given by those who have had [near death experiences \(NDE\)](#). It seems most reasonable to think that the accounts reflect similar beliefs before the experience rather than similar experiences in the "other world."

But there is more than just this similarity of how abductees's stories have common threads and so do the stories of mystics and NDE's. Still, this similarity helps see how the fact that stories are similar does not give very good evidence that the stories are therefore authentic accounts of actual similar experiences. More important, though, is the delusional nature of mysticism and out-of-body experiences ([OBE's](#)). If we can explain why people believe they have had mystical experiences or OBE's, we ought to be able to explain why people believe they've been abducted by aliens.

I don't think we should rule out good old-fashioned wishful thinking as being at work here. Although, it is a bit easier to understand why someone would wish to have a mystical experience than it is to grasp why anyone would want to be abducted by an alien. But, the ease with which we accept that a person might want to have a mystical experience is related to our cultural prejudice in favor of belief in God and the desirability of union with God. The desire to transcend this life, to move to a higher plane, to leave this body, to be selected by a higher being for some special task....each of these can be seen in the desire to be abducted by aliens as easily as in the desire to be one with God or to have an OBE.

If there are beings clever enough to travel around the universe today, there probably were some equally intelligent beings who could have done so in ancient or medieval times. The delusions of the ancients and the medievals are not couched in terms of aliens and spacecraft because these are our century's creations. We can laugh at the idea of gods taking on the form of swans to seduce beautiful women. We can laugh

at the idea because it doesn't fit with our cultural prejudices and delusions. We can laugh at the idea of devils impregnating nuns because it doesn't fit with our cultural prejudices and delusions. The ancients and medievals probably would have laughed at anyone in their times who would have claimed to have been picked up by aliens from another planet for reproductive surgery. The only reason anyone takes the abductees seriously today is because their delusions do not blatantly conflict with our cultural beliefs that intergalactic space travel is a real possibility and that it is highly probable that we are not the only inhabited planet in the universe. In other times, no one would have been able to take these claims seriously.

Abductees are analogous to mystics and OBE's, or to medieval nuns who believed they'd been seduced by devils, or to ancient Greek women who thought they'd had sex with animals, or even to women who came to believe they were witches after hearing their priest read from the Bull on witches of Pope Innocent VIII or from a book on how to identify witches such as *The Witch Hammer*. And their counselors and therapists are like the priests of old who are there not to challenge beliefs, but to encourage them, to nurture them, to do everything in their power to establish their stories as orthodox. My guess would be that it will very hard to find an abductee who has not been heavily influenced into their belief by reading stories of aliens, or books like *Communion* or *Intruders*, or by seeing movies featuring aliens. It will be even more difficult to find an abductee who hasn't been greatly encouraged in their delusion by a counselor like Hopkins or a therapist like Mack. Given a great deal of encouragement by a believing community, and reinforced by the high priests, is it really that difficult to understand why there are so many people today who believe they have been abducted by aliens? I don't think so.

The only question that I find interesting and challenging in all this is the question as to what makes certain people susceptible to such beliefs, while other people would never be tempted to have such delusions. We can list a few items we have good reason to believe are *not* at work here. Intelligence is probably not a significant factor. Abductees and their high priests seem to be as intelligent or unintelligent as the rest of us. Brain disease, or serious chemical imbalance, is not likely a factor in most cases. Brainwashing is an unlikely factor. Even childhood experiences or upbringing are not likely factors. But when we try to identify factors which are common to the "true believers" but absent from the "skeptics" and vice-versa, it is difficult to establish such lists of characteristics with confidence.

About the only characteristics which I think are common to the abductees are the qualities of "vivid imagination" and very strong emotional response to experience. However, many skeptics could be said to have both vivid imaginations and very strong emotions. So, those qualities in themselves don't seem to explain anything. However, one characteristic which seems apparent in abductees and is lacking in most, if not all, skeptics, is a strong tendency to be suggestible. It may well be the case that while abductees and skeptics might be described as having strong emotions, the way the emotions function in an abductee's life is quite different from how they function in a skeptic's life. A skeptic may get quite agitated at people who refuse to examine evidence or who don't seem to have a clue as to what counts as a controlled experiment. A skeptic may be overcome with sadness at the credulity and gullibility of others, especially people he or she loves. But I think it would be a rare skeptic whose emotions so dominate their experience that they become very suggestible or very vulnerable to ideas offered by simpatico fellow travelers or high priests who

seem to placate or explain their feelings. It may not be simply that the abductees have strong emotions; they may be much more self-conscious of their feelings and emotions, much more likely to say they are experiencing "vague" or "strange" or "inexplicable" feelings. This is not the same as being in tune with one's feelings. It is more like being constantly aware of being uneasy but without any sense as to why you should feel that way. And it certainly is not the same as having strong emotions.

I am obviously outside of my field of expertise in speculating as to what might explain thousands of people having a common delusion of being abducted by aliens. I am not nearly as sorry for having speculated on the matter, however, as I am that *Nova* made only a minimal effort to provide a skeptical psychologist's attempt to explain this phenomenon. I would have preferred a program that spend 45 minutes with Dr. Robert Baker, the skeptical psychologist, than one which spend 45 minutes with the likes of Hopkins and Mack from whom I learned nothing of value. I would also have preferred a program which would have included all of the footage *Nova* took of an interview with Philip Klass where he offered his analysis based on thirty years of investigating UFO reports. Instead, all the Klass footage ended up on the editing room floor.

Finally, I would have preferred to have heard more from Dr. Loftus regarding the role counselors and hypnotherapists play in creating memories in their patients. From the little that *Nova* showed us of Hopkins at work, it was apparent that Mr. Hopkins encouraged the creation of memories. A little comparison with the [Bridey Murphy](#) case or other past-life regression cases would have been in order, too.

Postscript. I have just finished reading the many responses to the *Nova* program on their [UFO Feedback Page](#). Apparently, I am only one of a very small number who thought the program was "too fair" to Hopkins and Mack. Most of the feedback was critical of the show for debunking the alien abduction notion and its advocates. Many of the critics of the show were dismayed that *Nova* did not examine the "scientific evidence" for abduction and spent all of its time promoting the hypothesis that all alien abduction stories are based on false memories implanted by therapists. I would agree that the show spent too much time dealing with therapy, but I think Hopkins and Mack were certainly given more than enough opportunity to make their case...much more opportunity than the false memory advocates Loftus and Baker.

The criticisms of the show (including my own) should remind us of how we want the media to be our advocates, to present things the way we see them, and when they don't we criticize them for being "biased" and "unfair" or, in this case, "unscientific." In addition, given the volume of specific criticisms they received, I think *Nova* might do well to consider doing another program on the subject which focuses on the "scientific" evidence for visitation and abduction, such as scoop marks on legs, scars and soil. Apparently, the program did include some footage of this "evidence" but it did not make its way to the final program. *Nova* has posted online some of the interviews it did for the program. The interviews, as well as other material *Nova* posts for teachers who might want to use the *Nova* program in the classroom, are located at their site called [Exploring the Alien Abduction Phenomenon](#). If I had read all the material posted, especially the stuff for teachers to use to get their students to

think about memory construction or evaluating the theories of von Daniken and Reichert about Peruvian land drawings (alien airport or native calendar), I would have viewed the program in a very different light. I would have seen it as many of the critics saw it: an attempt to explain alien abductions as hypnogogic hallucinations nurtured into false memories by therapists. I would also have better appreciated what I thought was going overboard to let Hopkins and Mack present their case. This was part of a lesson plan emphasizing the problem of evaluating competing explanations of the same phenomenon. If a skeptic views the entire package, the *Nova* WWW site and the TV program on alien abductions, he or she will probably see that the program is much more skeptical than if one viewed only the TV program.

Imagine what response *Nova* would have gotten if it presented another explanation that compared belief in having been abducted by aliens with belief in having had a mystical experience or having been blessed with a vision of the Virgin Mary.

February 25, 1996. NBC: [The Mysterious Origins of Man](#) by Dave Thomas. I have nothing to add to this review of a show featuring Charlton Heston spewing anti-science propoganda.

February 23, 1996. Ann Landers, (from the *Davis Enterprise*). Today, Ann Landers gave a boost to alternative medicine quackery by not responding to the illogical reasoning of P.W. from Taiwan regarding Western medicine men versus Chinese herbalists. P.W., a European married to a Taiwanese, wrote that while in Europe his wife had become pregnant three times and each time she miscarried due to fetal chromosomal abnormalities. Their European doctors declared the couple to be "healthy" and apparently gave them every indication that they were just unlucky. This evaluation was "depressing," says P.W.

The barren couple went East and in Taiwan their gynecologist gave them "a bag full of herbs" which they were instructed to take for a year. Halfway through the "treatment" Mrs. W. became pregnant. At the time the letter was written their son was 10 months old.

P.W. implored Ann: "Please, Ann, tell your readers in the West that couples who cannot have a child do not necessarily have a problem. The problem might be with their specialists, whose Western knowledge of the human body is sometimes quite limited." Now, I think most Western physicians would admit that their knowledge of the human body is often limited, but it hardly relates to P.W.'s situation. He assumes that the Chinese herbalist, who spoke of "harmony and balance in the body and mind," was instrumental in his wife's pregnancy. Furthermore, he assumes that the Western specialists were wrong in attributing their problem to bad luck. What evidence does P.W. have for these notions? The only "evidence" he has is the fact that his wife got pregnant after taking the herbs. This bit of [post hoc reasoning](#) is totally insufficient to warrant P.W.'s conclusions and Ann Landers should have let him know that. Instead, she replied:

I'm for whatever works. Considering the number of people who die from botched and unnecessary surgery and improper medication, herbal medicine could be a viable alternative.

Ann doesn't consider how many people die or continue to suffer when they take herbs instead of getting proper "Western" treatment with surgery, medicine, or drugs. But worse than that she seems oblivious to the insufficiency of evidence presented by P.W. The fact that his wife got pregnant after taking herbs does not prove the herbs had anything to do with her getting pregnant. It might have been "luck" [the luck of natural events taking their course] or divine intervention, for that matter, that explains the pregnancy. However, P.W. had ruled out divine intervention because his wife's father, an herbal doctor, told him "there are no miracles in healing." To which P.W. commented in a fitting non sequitur: "those so-called miracles just show how little some traditional doctors know."

Ann doesn't ask what herbs they took and she certainly indicates no interest in whether anyone has done a controlled study on the effectiveness of these herbs. She's for "whatever works." What does that mean? It seems to mean, "I'm for believing whatever you feel like believing when you are happy with some event." P.W.'s happy he has a son, so he is welcome to believe that the herbs did it and that the European physicians who told him he and his wife were healthy but unlucky didn't know what they were talking about. Furthermore, this proves herbalists with their notions of harmony and balance and other gibberish are not just valid, but superior notions to the Western notions of the body and cause-effect relations. What bunk!

February 11, 1996. *Parade Magazine*, "How to Control the Pain," by Earl Ubell.

This article presents a very misleading picture of the state of psychiatry's treatment of mental illness by drugs. The header for the article reads:

Every major mental illness--from schizophrenia to anxiety disorder-- is being successfully treated, using fresh insights and new drugs.

The statement is not false. Some mentally ill people are being treated successfully with drugs, but this and other statements scattered throughout the article make it sound like the vast majority of mentally ill people are either now being successfully treated or soon will be. The article produces no solid basis for such optimism. It is based primarily on anecdotes and [testimonials](#). The article never defines "successful treatment" as it applies to the mentally ill. No empirical research is cited, but the National Institute of Mental Health [NIMH] is cited as a source for such claims as "the success rate for the treatment of [obsessive- compulsive] disorder is almost 60 percent." Does that mean the failure rate is almost 40 percent? We are also told that "drugs have raised the success rate for treatment of anxiety disorder to 80 percent." What we are not told is what the success rate is for non-drug treatment of this disorder. Without a reference point for non-drug treatment, we can't adequately evaluate the 80 percent statistic.

No statistics are given for drug treatment of major depression, but the NIMH is cited to support the claim that "by treating a patient with a variety of medications, doctors have controlled the symptoms of bipolar mood disorder 80 percent of the time. The same source is used to support the claim that manic depression, if treated with the drug lithium, is controlled in 50 to 60 percent of patients. Does that mean it is not controlled in 40 to 50 percent of patients?

As for drugs and the successful treatment of schizophrenia, the article is very light. It gives one anecdote, no data, and a list of the drugs being used to treat this awful disease. I am glad that at least one person has been successfully treated with drugs for schizophrenia. But where is the rest of the story? Where are the accounts of those who have been treated with dozens of different drugs over many years, to no avail? Are these "failures" the vast majority of schizophrenic patients? If so, why is this not mentioned in the article? If not, why is there no evidence given in the form of scientific research which would back up the claim that schizophrenia is being successfully treated by drugs in the vast majority of cases?

The article is also misleading when it asserts that

Since the 1960s, NIMH reports, the number of Americans in mental institutions has fallen by 85 percent. The new drugs developed since then unquestionably have contributed to this.

The reason the number of patients in mental institutions has fallen so dramatically is mainly political: political leaders like Ronald Reagan, when he was governor of California, shut them down. All over the country, mental institutions were shut down because they were not being funded any more. They weren't shut down because many or most patients were being cured with drugs.

I would be the first to admit that some mentally ill patients have been successfully treated with drugs, with therapy and with a combination of the two. But to suggest that the vast majority will be cured with drugs in the near future because of these successes is grossly misleading. Today, scientists know a lot more about the brain and its relation to human behavior than they did 10, 20 or 30 years ago. However, despite the fact that researchers will continue to study brain and genetic systems, the optimism expressed by Mr. Ubell (whomever he may be....nothing about him is presented in the article) seems unwarranted and may give unjustified hope to millions of people who now suffer themselves or through a loved one afflicted with a brain disorder.

April 19, 1987. Alice Kahn, "Channeling for Dollars,"*The San Francisco Chronicle*. Channeling has become big business for New Agers. In the San Francisco Bay area, for example, \$15 gets you in to hear "Michael"--an entity said to have had 1,050 beings over time--give personal advice to enthusiastic young professionals. After the show, the customers are offered "Acu-Kinetic Repatterning." For \$520 anyone can become a "certified practitioner," and for \$150 anyone can purchase the program "Change Your Life Through Colors." The latter, the customers are told, is usually \$275, but this is a special introductory offer. Kahn's article was based on her attendance at one of the sessions. She also notes that for \$125 anyone could attend the 3rd annual Michael Retreat at Harbin Hot Springs for "shamanic rituals, dream-sharing, breakfast and dinner."





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alien abductions, UFOs and ETs

2 April 2003

A few years ago I began to suffer small strokes (Transient Ischemic Attacks or TIA's). They've stopped now due to diet, exercise and several stents. When I was experiencing the TIA's I also suffered from [sleep paralysis](#). This is the syndrome many think is the cause of people thinking they were abducted by aliens.

My first one occurred in a hotel room in Las Vegas. It wasn't aliens who attacked me though it was ghost wolves I remembered seeing in an old cartoon when I was a child. The experience seemed to be absolutely real at the time. The ghost wolves grabbed me and tried to drag me out the 6th floor window. I kicked, punched and wrestled with the wolves until I woke up. The room was a mess. Evidently I thrashed around and knocked over a lamp. I also sustained rug burns on my hands that looked exactly like the scoop marks alien abductees claim to have. Back home I experienced a half dozen more episodes, each with a different cast of characters. On one occasion I must have thrown myself out of bed trying to wake up. I awoke seemingly floating in the air, this was the sensation this condition caused. Naturally I crashed to the floor at 32 feet per second. The last one was the strangest of all. My son and my dog came into my bedroom when they heard me yelling in my sleep. My eyes were open and I could see both of them but they were standing not in my bedroom but in the strange dreamscape I had been trying to escape.

I suppose I could have gone along with the X-Files stuff, the dreams fit with the alien abduction hypothesis, but I've always been a rational person. These occurrences seem real but I know they were all in my mind. There's a saying, if you hear hoof beats outside your window it's probably horses not zebras. The people who think sleep paralysis is alien abduction are thinking zebras not horses. I hope anyone who has one of these episodes consults a doctor; they might be suffering from blood loss to the brain as I was. This condition can be fatal.

Sincerely,

Thomas Troon

26 Nov 99

Re: Betty and Barney Hill "Abduction" Scenario

*A former colleague of mine who studied ethnicity and race relations at Oakland University proposed the following alternative explanation for the famous "alien abduction" case. One of the facts of the case that many researchers, skeptics, and UFO buffs tend to overlook is that the Hills were an interracial couple, and that the "abduction" allegedly occurred in 1961, a time when racial tensions in America were high, and, to paraphrase author James W. Loewen, a couple such as the Hills might have reasonably feared being "killed or beaten by white racists simply for holding hands as an interracial couple or eating together in a restaurant" (*Lies My Teacher Told Me*, 228). According to my colleague's theory, the Hills fabricated the sensational tale of being kidnapped by alien beings in order to intentionally draw attention from the media, thus placing themselves somewhat "in the public eye," locally if not nationally. Their story gained them not only media coverage, but also the attention of a prominent psychiatrist, Dr. Benjamin Simon. Regardless of whether reporters, the public, or the doctors who examined the Hills actually believed them (Dr. Simon did not, stating that the story was a "fantasy"), the recognition the story brought the couple helped ensure that they would not become the victims of a racist attack. In other words, it's harder to get away with killing a famous person than it is to get away with killing a "nobody." The "fame" the Hills generated with their story might just have been enough to ensure that, if one or both of them ever met an untimely demise in a dark alley, they would be more likely to be missed, the crime would be more likely to be reported in the media, law enforcement would be less likely to "look the other way," etc. Thus, by "making themselves famous" with their alien abduction tale, the Hills were setting up a deterrent to any hate crimes that might be perpetrated against them. The Hills really were fearing for their lives, though not from the threat of alien abduction, but from the threat of racist violence.*

In closing, I'd like to point out that their strategy does seem to have worked. When Barney Hill died seven years later, it was of natural causes, and Betty Hill survived him for years afterward (neither ever reported any further "abductions"). Unfortunately, their story, born of desperation, seems to have been the inspiration for the hundreds of later accounts that make up the "alien abduction" phenomenon. If my colleague's theory is sound (and I think it has some merit), then how very ironic it is indeed that one couple's attempt to protect themselves during turbulent and dangerous times seems to have spawned an entire "movement" based on paranoia, irrationality, and delusions!

Rob Novak

reply: I wouldn't presume to be able to get inside the Hills' heads and pinpoint their motivation, conscious or subconscious. If this were there motivation, I think it might have been easier to have moved to Sweden.

26 Oct 1999

Dear professor:

reply: Oh, oh. Whenever anyone addresses me as "professor" I can feel the trouble. Reminds me of when my mother would call me "Robert" instead of Bobby.

Accepting the fact of alien existence and integrating it into our consciousness is perhaps the most important activity one can do in this life. Denying this would be akin to dogs imagining that humans are holograms created by other dogs. I suppose that hamsters have yet to integrate the pinkness of the presence that occasionally manifests itself in its world of wood chips and treadmills as that of a human hand, and I also suppose that humans have yet to integrate silver disks as craft from otherworldly beings. For the hamster the human hand is probably a deformed treadmill, or a funny kind of woodchip pile. For humans such as yourself, the silver disk is a story of insufficient evidence and "people who just don't know how to reason".

reply: I can understand why someone might find the meaning of life in alien existence, but how denying this is akin to dogs imagining humans are holograms created by other dogs is alien to me.

You write:

Another common tactic of UFOlogists is to claim that the skeptic cannot prove that what was seen was not an alien craft.

This is true, namely, that the skeptic cannot prove that what was seen was not an alien craft. It is also true that nothing outside of mathematics (logic) can be proven, and even within mathematics, a proof consists in showing that it follows from the axioms, which are themselves taken as unprovable. To prove something is to embed our ignorance in more primitive assumptions, i.e., the assumption that our axioms are true and that our rules of inference are truth-preserving. Interesting to note is that no mathematician produces proofs this way (through transitive closure of a rule of inference upon a set of axioms). Instead they 'know' their theorems before the proof is supplied, and then publish their theorem after coming up with a proof later. The words "proof" and "truth" as used in common parlance are quite different things. A good book on what a proof really 'proves' is "Proofs and Refutations" by Imre Lakatos. What we're doing in the real world when we 'prove' something is show that the contrary is extremely improbable.

You then write:

One is supposed to infer from this fact that the perception probably was of an alien craft. This kind of reasoning is known as the argumentum ad ignorantiam. A claim does not become true or reasonable if a contrary claim cannot be proved to be

true.

Sir, What you say is of course true, that is, that a claim does not become true because it cannot be disproven, but what does this have to do with the eye-witness account? I have read much of the available literature, and I have never read anyone trying to forward the kind of reasoning that you cite here. I think you must have heard this in a coffee-shop somewhere and slapped it up on your website.

reply: You can think that, but you'd be wrong. What I've read many times from UFOlogists is an account by an eyewitness and a question for the skeptic: *What else could it be but an alien spacecraft?* or *The only logical explanation is that this was a real experience of alien abduction.* The first is a type of argumentum ad ignorantiam; the latter is a false dilemma. Just because a true believer can't come up with a plausible alternative hypothesis, doesn't mean there isn't one. There are always other explanations that are equally or more logical.

If an eye-witness reports a UFO sighting you must either

1. Assume the witness is suffering from some sort of aberration, or has a mental disorder (which could be very likely!) 2. The witness saw what they saw, which may or may not be explicable conventionally.

Since I find it hard to believe that ALL of these people are insane, I must believe that at least one of them is telling the truth. If even one report is true, if even one report cannot be explained away with a "conventional" explanation (and what's conventional in assuming that all these people are publicity-seeking nuts?), if even one of these reports is true, the aliens are among us.

reply: There is another possibility which you have overlooked: eyewitnesses often make mistakes. They interpret their perceptions incorrectly. Sometimes they are assisted in reconstructing an experience by alien abduction "experts" and end up constructing "memories" of events that never happened. You seem to assume that perception does not involve interpretation.

You write:

The fact that some genius cannot come up with an explanation for something is irrelevant to whether the correct explanation should be couched in terms of visitors from outer space. The choice is not either (A) we know this conventional explanation is correct, or we must conclude that (B) aliens have visited us.

Sir, the fact that some genius cannot prove something is VERY relevant.

Geniuses do all sorts of things that are very relevant, such as finding cures for diseases and inventing nuclear bombs. If our greatest geniuses cannot explain UFO's away, then it's relevant.

It seems more reasonable to believe that the only reason we cannot explain these sightings by conventional means is because we do not have all the evidence; it not because these sightings are probably due to alien visitations. If we had all the evidence, we would probably be able to explain the sightings by some conventional means. The fact that we cannot prove that Mr. and Mrs. Barney Hill were not abducted by aliens, does not support the hypothesis that they were abducted by aliens.

reply: You mock me, sir. Surely, you recognize that I am being facetious when I refer to UFOologists as geniuses. No true genius would spend any more time on [Betty and Barney Hill](#) than on [Betty and Barney Rubble](#).

Sir, you have two choices:

- 1.Assume that Betty and Barney Hill were insane, or hallucinating, or both.*
- 2.They are telling the truth.*

There are no other possibilities, professor!

I wish you and your students the very best of luck, professor.

Matt Gould

reply: Wrong. I have a third choice. I can look at the evidence and conclude that the Hills case is a typical case of [confabulation](#).

I wish you the best of luck, too, Mr. Gould.



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allopathy

Allopathy is a term used by American [homeopaths](#), [naturopaths](#), [chiropractors](#) and other advocates of [alternative health practices](#) to refer to conventional medicine. My Random House Dictionary of the English Language (unabridged edition) defines allopathy as "the method of treating disease by the use of agents that produce effects different from those of the disease treated (opposed to homeopathy)." The word was invented by homeopath Samuel Hahnemann as a term for those who are *other* than homeopaths. In America, the term has not caught on and is used mainly by "alternative" practitioners and some [osteopaths](#).

further reading

- ["Allopathy,"](#) by Tim Gorski, M.D.
- ["Allopathy"](#) by William T. Jarvis, Ph.D

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naturopathy

Naturopathy is a system of therapy and treatment which relies exclusively on [natural](#) remedies, such as sunlight, air, water, supplemented with diet and therapies such as [massage](#). However, [some naturopaths](#) have been known to prescribe such unnatural treatments as [colon hydrotherapy](#) for such diseases as asthma and arthritis.

Naturopathy is based on the belief that the body is self-healing. The body will repair itself and recover from illness spontaneously if it is in a healthy environment. Naturopaths have many remedies and recommendations for creating a healthy environment so the body can spontaneously heal itself.

Naturopaths claim to be [holistic](#), which means they believe that the natural body is joined to a supernatural [soul](#) and a non-physical [mind](#) and the three must be treated as a unit, whatever that means. Naturopathy is fond of such terms as "balance" and "harmony" and "energy." It is often rooted in mysticism and a metaphysical belief in [vitalism](#) ([Barrett](#)).

Naturopaths are also prone to make grandiose claims about some herb or remedy that can enhance the immune system. Yet, only medical doctors are competent to do the tests necessary to determine if an individual's immune system is in any way depressed ([Green](#)). Naturopaths assume that many diseases, including cancer, are caused by faulty immune systems. (The [immune system](#), in simple terms, is the body's own set of mechanisms that attacks anything that isn't "self." Although, in some cases rather than attack "foreign bodies" such as viruses, fungus, or bacteria, the immune response goes haywire and the body attacks its own cells, e.g., in [lupus](#) and [multiple sclerosis](#).) Naturopaths also promote the idea that the *mind* can be used to enhance the immune system and thereby improve one's health. "Yet, there are no credible reports in the scientific literature to support the contention that "alternative" methods operate--on cancer or on any other disease--through an immune mechanism" ([Green](#)). Furthermore, the evidence that such diseases as cancer occur mainly in people with compromised immune systems is lacking. This is an assumption made by many naturopaths but it is not supported by the scientific evidence. Immunologists have shown that the most common cancers flourish in hosts with fully functional and competent immune systems ([Green](#)). The notion that vitamins and [colloidal minerals](#), herbs, coffee enemas, colonic irrigation, Laetrile, meditation, etc., can enhance the immune system and thereby help restore health is completely bogus. On the one hand, it is not necessarily the case that a diseased person even has a compromised immune system. On the other hand, there is no scientific evidence that any of these remedies either enhance the immune system or make it possible for the

body to heal itself.

Naturopathy is often, if not always, practiced in combination with other forms of "[alternative](#)" [health practices](#). [Bastyr University](#), a leading school of naturopathy since 1978, offers instruction in such things as [acupuncture](#) and "spirituality." Much of the advice of naturopaths is sound, e.g., exercise, quit smoking, eat lots of fresh fruits and vegetables, practice good nutrition, etc. Claims that these and practices such as colonic irrigation or coffee enemas "detoxify" the body or enhance the immune system or promote "homeostasis," "harmony," "balance," "vitality," etc., are exaggerated and not backed up by sound research.

See related entries on "[alternative](#)" [health practices](#), [Ayurvedic medicine](#), [chiropractic](#), [homeopathy](#), [natural](#), and [Joel D. Wallach](#), "[The Mineral Doctor](#)".

further reading

- [A Close look at Naturopathy](#) by William Barrett, M.D.
- [Why Health Professionals Become Quacks](#) by William T. Jarvis, Ph.D.
- [Can Any Cancer Treatment Strengthen the Immune System?](#) Saul Green, Ph.D.
- [Can Alternative Treatments Induce Immune Surveillance Over Cancer in Humans?](#) Saul Green, PhD
- [Understanding the Immune System](#) - National Cancer Institute

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[Treatment of Hypertension with Alternative Therapies \(THAT\) Study: a randomized clinical trial.](#)

chiropractic

The basic theory of chiropractic is that "[subluxations](#)" are the cause of most medical problems. A "subluxation" is a misalignment of the spine that allegedly interferes with nerve signals from the brain. Chiropractors think that by adjusting the misalignments they can thereby restore the nerve signals and cure health problems. This theory was first propounded in 1895 by [D.D. Palmer](#), a grocer from Davenport, Iowa. There is little scientific evidence to support the theory. Most support for the theory comes from [testimonials](#) of people who claim to have been helped by chiropractic. Whether they were helped because nerves were "unblocked" is not always that clear. Most of these have been people with back pain that has been alleviated by spinal manipulation. This is not to say that chiropractors don't help people with aching backs, including people with chronic back problems. It is the *theory* of subluxations that has not been supported by scientific studies.

The theory of subluxations maintains that all health problems are due to "blockage" of nerves. It is true that nerves from the spine connect to the organs and tissues of the body and it is true that damage to those nerves affects whatever they connect to, e.g., sever the spinal cord and your brain can't communicate with your limbs, though your other organs can still continue to function. Chiropractic is often [holistic](#) and is based upon the belief that the body is basically self-healing. Hence, drugs and surgery are not recommended except in extreme cases. Spinal manipulation allegedly unblocks nerves so the body can heal itself. Chiropractic seems like a materialistic version of Chinese [acupuncture](#) used to unblock [chi](#), or [therapeutic touch](#) to channel [prana](#). The chiropractor's "needles" are his or her hands and fingers, manipulating nerves rather than the flow of chi. However, the chiropractic theory of subluxations seems to be empirically testable, unlike the metaphysical theory of acupuncture unblocking chi. Why, then, has conventional medicine opposed chiropractic for the most part? Chiropractors rarely are in joint practice with medical doctors, and they are almost never on staff at hospitals. Is there a conspiracy on the part of the American Medical Association (AMA), who fear chiropractors will dip into their profits, as many chiropractors maintain?

The AMA, of course, is partly responsible for chiropractic's reputation as quackery. For years, the AMA made no bones about their disapproval of chiropractic, which was featured in their *Committee on Quackery*. But the chiropractors fought back and won a significant lawsuit against the AMA in 1976 for restraint of trade. Today, the American College of Surgeons has issued a [position paper](#) on chiropractic which sees the two professions as working together. Privately, many battles continue between the medical

profession and chiropractic, but publicly the AMA no longer attacks chiropractic. In fact, the AMA may have been shell shocked by the victory of the chiropractors in the courtroom. For, today numerous so-called "[complementary medicine](#)" techniques are being allowed to flourish in hospitals and medical clinics around the country without a word of protest from the AMA. The National Institutes of Health has a flourishing division for testing even the most unpromising of alternative health practices. Chiropractors and other "alternative" practitioners have learned one thing from the AMA: it pays to organize and to lobby Congress and state legislatures. The AMA is still the most powerful lobby among health care professionals, but it is no longer flying solo. Even so, the AMA's lobbying is not the only reason that chiropractic's public image has suffered.

For years chiropractors relied more on faith than on empirical evidence in the form of [control studies](#) to back up their claims about the wonders of nerve manipulation. This is changing and to some extent so is the relationship between the medical profession and chiropractic. There is a growing body of scientific evidence that chiropractic is effective in the treatment of many lower back ailments and neck injuries. There is some evidence that chiropractic is effective for the treatment of certain kinds of headaches and other pains. The chiropractor is one of the few alternative health practitioners that medical insurance will generally cover. However, the likelihood that diseases such as cancer, for example, will ever be attributed to nerve blockage seem extremely remote. Making extravagant claims about the wonders of chiropractic, or references to the flow of "life forces" which heal the body or to such notions as "bio-energetic synchronization," are not likely to contribute to the advancement of the discipline into mainstream medicine. Likewise, making claims such as that *germ theory is wrong*, a common chiropractic claim, does little to make chiropractors seem like advanced medical practitioners. To ignore bacteria and viruses, or to underestimate the role of microbes in infections, as chiropractors are wont to do, are not likely to advance their cause. Every misdiagnosis or mistreatment by a chiropractor undermines the whole profession, rather than only the individual malpractitioner, because of the contentious nature of the theory of subluxations.

There are, of course, horror stories featuring medical doctors. However, very few people take such stories as indictments of the entire profession. They are seen as aberrations, not typical. This is not likely due to the better lobbying efforts of the AMA or to a conspiracy to control the press. It is most likely due to the experiences most people have had with medical doctors and the generally positive effects of modern medicine. In many cases, medical doctors take much greater risks than any chiropractor ever will. Hence, failures by an M.D. can be disastrous or even fatal; rarely will that be the case for a chiropractor. Though this may well change if the current push by chiropractic to become primary care practitioners for infants and children is successful. Pediatrics is much riskier than manipulating the spine of an old man who is there because he doesn't want surgery and he wants to play golf that

afternoon.

In short, chiropractic remains controversial, though not in all areas of its practice. It has firmly established itself as an effective treatment for lower back pain. It is attractive because there is no danger from side effects of drugs, since chiropractors don't generally recommend drugs to their patients. It is also attractive because it is seen as an alternative to surgery. And it is attractive because it is generally less expensive than treatment by a physician with drugs or surgery. Though, it should not be assumed that all medical doctors are quick to prescribe drugs or surgery. Many, like their chiropractic brothers and sisters, will recommend selected exercises for specific back problems.

See related entry on [alternative health practices](#).

further reading

[reader comments](#)

- [What Do Chiropractors Believe and Why Does It Matter?](#) by Paul Benedetti and Wayne MacPhail
- [ChiroBase](#) A Skeptical Guide to Chiropractic History, Theories, and Current Practices (Operated by Stephen Barrett, M.D. William T. Jarvis, Ph.D. and Charles E. DuVall Jr., D.C.)
- [ChiroWatch](#)
- [National Council for Reliable Health Information Position Paper on Chiropractic](#)
- [NCAHF Fact Sheet on Chiropractic \(1998\)](#) William T. Jarvis, Ph.D.
- [Don't Let Chiropractors Fool You](#) by Stephen Barrett, M.D.
- [A Comparison of Active and Simulated Chiropractic Manipulation as Adjunctive Treatment for Childhood Asthma](#) - *New England Journal of Medicine* October 8, 1998 v. 339 issue 15 (found no benefit from chiropractic)
- [A Comparison of Physical Therapy, Chiropractic Manipulation, and Provision of an Educational Booklet for the Treatment of Patients with Low Back Pain](#) - *New England Journal of Medicine* October 8, 1998 v. 339 issue 15 (found no difference between physical therapy and chiropractic and found any benefit from either to be minimal)
- [Statement by the American College of Surgeons on Interprofessional Relations with Doctors of Chiropractic](#)
- [Chiropractic OnLine](#)
- [Mass Media Funk](#)

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Consumer Reports (September 1995), article on lower back pain.

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 [chiromancy](#)

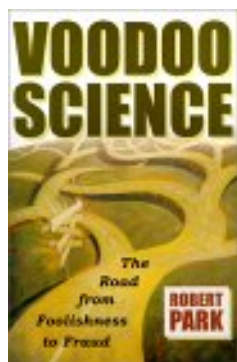
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alphabiotics

Alphabiotics is an alternative medical practice based on the notion that "all disease is the result of an imbalance and lack of Life Energy." Health depends on "aligning" and "balancing" "Life [Energy](#)"--whatever that is.

Alphabiotics is the brainchild of Dr. V. B. Chrane who started practicing it in the 1920's near Abilene, Texas. It was "established as a unique new profession by Dr. Virgil Chrane, Jr., on December 28, 1971", according to Virgil Chrane, Jr., and the practice is still flourishing with Virgil Jr. and his son, Dr. Michael Chrane. The ducklings don't fall far from the quack.

See **related entry** on [alternative health practices](#).

further reading

- ["Alphabiotics" Practitioner Loses Chiropractic License](#) Stephen Barrett, M.D.
- [Alternative Medicine and the Laws of Physics](#) by Robert L. Park
- [Alphabiotics Home Page](#)

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[alpha waves](#) 

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energy

In physics, the basic idea of energy is the capacity of a physical system to do "work." In physics, "work" is defined as the product of a force times the distance through which that force acts. "Energy" is a term to express *the power to move things, either potential or actual*. New Age spiritualism is all about empowerment. The New Age is about enhancing your *energy*, tapping into the *energy* of the universe, manipulating *energy* so that you can be happy, fulfilled, successful, and lovable, so life can be meaningful, significant, and endless. In short, the New Age is about becoming like God, an omnipotent, eternal being capable of magic, having the power to move things at will.

Of course, New Age *energy* has nothing to do with mechanics, electricity, or the nuclei of atoms. New Age *energy* has more to do with things like [chi](#) or [prana](#). New Age Energy isn't measurable by any known scientific instrument and is believed to be not only the source of life, but of health as well. There are no ergs, joules, electron-volts, calories, or foot-pounds of New Age *energy*. This energy is outside the bounds of scientific control or study. Only healers with special powers at "unblocking," "harmonizing," "unifying," "tuning," aligning," "balancing," "channeling," or otherwise manipulating New Age *energy*, can measure this energy. How? They measure it by *feeling* it. Energy medicines are based upon variants of the metaphysical theory known as [vitalism](#), a theory that has been dead in the West for over a century. New Age [quackery](#) often maintains that the older a theory is the more one should have faith in it.

Few things are more intimidating to the non-scientist than modern physics. Even an educated person has difficulty comprehending the most basic claims made about the entities and possible entities of the sub-atomic world, not to mention the exotic claims about entities and possible entities at the edges of the universe. Even the concepts of "sub-atomic" and "edge of the universe" boggle the mind. Perhaps it is because of the obscurity and inaccessibility of modern physics that many uneducated people scoff at science and find solace in fundamentalist religious interpretations of the origin and nature of the universe.

Another response to the seemingly transcendental nature of concepts in modern physics has been to interpret those concepts in terms of ancient metaphysical doctrines popular for thousands of years in exotic places (to the Western mind) such as India and China. This notion of a "harmony" between ancient metaphysics and modern physics is attractive to those who accept science and reject the Christian sects they were raised in, but still have spiritual longings. Believing in this notion of "harmony" between the ancient East and the modern West has the virtue of allowing one to avoid appearing to

be an imbecile who rejects science in order to accept religion. As such, it shares in common at least one trait with "[scientific creationism](#)": it re-creates science in its own image for its own purposes. Science is the handmaiden of Religion and Metaphysics, as Philosophy had been for Theology in the Middle Ages.

Acting much like nuclear accelerators on atoms, the New Age theorists smash concepts into bits, only the bits are interfered with in ways Heisenberg never foresaw. We may as well talk about "alternative" physics; for, what they have done to the concepts of modern physics is to refashion them into a metaphysics with its own technology and product line. Nothing demonstrates this more clearly than the New Age conception of "energy."

In conclusion, 9-year old Emily Rosa tested 21 [therapeutic touch](#) (TT) practitioners to see if they could feel her life energy when they could not see its source. [The test was very simple](#) and seems to clearly indicate that the subjects could not detect the life energy of the little girl's hands when placed near theirs. They had a 50% chance of being right in each test, yet they correctly located Emily's hand only 44% of the time in 280 trials. If they can't detect the energy, how can they manipulate or transfer it? What are they detecting? Dr. Dolores Krieger, one of the creators of TT, has been offered \$1,000,000 by [James Randi](#) to demonstrate that she, or anyone else for that matter, can detect the human energy field. So far, Dr. Krieger has not been tested.

See entries on [New Age Energy](#) page.

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 [empiricism](#)

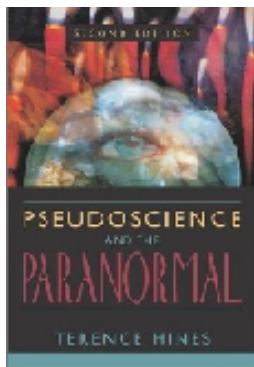
[the enneagram](#) 

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alpha waves

Alpha waves are oscillating electrical voltages in the brain. They oscillate in the range of 7.5-13 cycles per second. Because alpha waves occur in relaxed states such as meditation and under hypnosis, they have been mistakenly identified as desirable. Alpha waves also occur under unpleasant conditions and when one is not relaxed. They are not a measure of peace and serenity, nor are they indicative of an altered state of consciousness. Alpha waves are indicative of *lack of visual processing and lack of focus: the less visual processing and the more unfocused, generally the stronger the alpha waves*. If you close your eyes and don't do any deep thinking or concentrating on vivid imagery, your alpha waves will usually be quite strong.

There is no evidence that "[When asleep, the brain goes into a "repair and rebuild" mode under alpha wave energy,](#)" as an ad for a protein supplement claims. Nor is there evidence that the brain is more insightful, creative or productive while producing alpha waves. Some think that increasing alpha waves can enhance the immune system and lead to self-healing or prevention of illness. This belief seems to be based on the notion that since alpha waves increase while meditating and relaxed, they are indicative of lack of stress, which can only be good for you. However, alpha waves can occur when one is not relaxed. Hence, increasing alpha waves is no guarantee that one is reducing stress, much less is it proof that one is enhancing one's immune system.

You can, however, learn to [control a computer using your alpha and mu waves](#) (the latter appear to be associated with the motor cortex because they diminish with movement or the intention to move). And, you can even compose music with your brain waves, as [Dr. Miller](#) has done.

further reading

- [EEG WAVES AS DEFINED BY FREQUENCY](#) - Sydney Louis, M.D., Brown University

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[alphabiotics](#)

[altered states of consciousness](#)

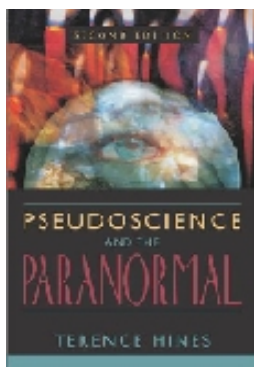


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altered states of consciousness (ASC)

A state of consciousness that differs significantly from baseline or normal consciousness often identified with a brain state that differs significantly from the brain state at baseline or normal consciousness. However, it is not the brain state itself that constitutes an ASC. The brain state is an objective matter, but it should not be equated with an EEG or MRI reading. Otherwise, we would end up counting such things as sneezing, coughing, sleeping, being in a coma, thinking of the color red, and being dead as ASCs. Brain state readings reveal brain activity or inactivity, but are not a good measure of ASCs. [Alpha waves](#), for example, have been identified with an ASC, but they usually measure lack of visual processing and lack of focus, though sometimes they measure a state known as "the Zone" or "the Flow State." This latter state is experienced by some athletes and video-game players who go on "auto-pilot."[*](#)

The baseline brain state might be best defined by the presence of two important subjective characteristics: the psychological sense of a self at the center of one's perception and a sense that this self is identified with one's body. States of consciousness where one loses the sense of identity with one's body or with one's perceptions are definitely ASCs. Such states may be spontaneously achieved, instigated by such things as trauma, sleep disturbance, sensory deprivation or sensory overload, neurochemical imbalance, epileptic seizure, or fever. They may also be induced by social behavior, such as frenzied dancing or chanting. Finally, they may be induced by electrically stimulating parts of the brain or by ingesting psychotropic drugs.

Many think the [hypnotic state](#) is an ASC. It certainly often resembles one, but it is doubtful that it is truly an ASC. A hypnotized person closely resembles certain amnesiacs who can be primed by being shown certain words. Later they have no conscious recollection of having been shown the words but they give evidence of implicit memory of the words. It is doubtful that amnesia should be considered an ASC.

There is little evidence that ASCs can transport one into a transcendent realm of higher consciousness or truth, as parapsychologists [Charles Tart](#) and [Raymond Moody](#) maintain, but there is ample evidence that some ASCs bring about extremely pleasant feelings and can profoundly affect personality. Some religious experiences, for example, are described as providing a very pleasant sense of divine presence and of the oneness, interrelatedness and significance of all things. Drugs such as LSD and mescaline can induce similar feelings. Some patients suffering from temporal lobe epilepsy think of their disease as temporal lobe "ecstasy," since it leaves them with a feeling of

being united with God (Ramachandran 1998). Also, by electrically stimulating the temporal lobes, Michael Persinger has been able to duplicate the sense of presence, the sense of leaving the body, and other feelings associated with mysticism and alien abduction (Persinger 1987). Dr. Olaf Blanke of Geneva University Hospital in Switzerland found that electrically stimulating the right angular gyrus (located at the juncture of the temporal and parietal lobes) triggers out-of-body experiences.* (In a related matter, Dr. Stuart Meloy, an anesthesiologist and pain specialist in Winston-Salem, North Carolina, was testing his pain-relieving invention on a patient when he accidentally discovered that by electrically stimulating a woman's spinal column he could induce orgasm.)

Are the brain states that elicit the feelings of mysticism in the religious ecstatic, the epileptic, the one on an "acid" trip, and the one with electrodes attached to his cranium caused by God? Perhaps, but if so there is no way of finding this out. Most likely, however, the mechanisms that trigger these feelings are completely natural. They may be a pleasant side effect of some evolutionary adaptation, but as yet we do not know why such brain states are triggered. And while it is an extremely interesting discovery that religious experiences can be induced by disease, electrodes, and by drugs, it hardly seems a compelling reason for believing in God. Although it might be a compelling reason for taking drugs, for not seeking treatment, or for using a transcranial electromagnetic stimulator and hoping for Orgasmatron results like the Woody Allen character in "Sleeper." Most religions identify the ideal state as an ASC: losing one's body and one's self, uniting with some sort of Divine Being, and feeling ecstatic pleasure. In this sense, to seek an ASC is to seek to kill your sense of self while enjoying the ultimate orgasm.

further reading

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[alpha waves](#)

[alternative health practices](#)



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Raymond Moody

A parapsychologist with a medical degree (from the Medical College of Georgia) and Ph.D.s in philosophy and psychology (from the University of Virginia). He has written several books on the subject of "life after life." He compiled the list of features many consider typical of the [near-death experience](#) (NDE): a buzzing or ringing noise; a sense of blissful peace; a feeling of floating out of one's body and observing it from above; moving through a tunnel into a bright light; meeting dead people, saints, Christ, angels, etc.; seeing one's life pass before one's eyes; and finding it all so wonderful that one doesn't want to return to one's body.

Moody conducts his paranormal studies at his private research institute in rural Alabama, which he calls The John Dee Memorial Theater of the Mind. Dee popularized crystal gazing in 16th century England. Moody is continuing in the spirit of Dee, trying to evoke apparitions of the dead under controlled conditions. Moody has a mirrored room where guests come to [scry](#), hoping for a visit from a dead loved one. ABC reporter Diane Sawyer tried it out for about 45 minutes but didn't have any visitors. Maybe she didn't have a strong enough desire to see a dead loved one. Maybe she didn't have a strong enough belief that gazing into mirrors can induce an [altered state of consciousness](#). Maybe she should have stayed in the room for a day or two.

There are many frauds who claim to be able to see into the past or future by various means of [divination](#) and there are many who hallucinate due to sensory deprivation, extreme concentration on a single item, or lengthy gazing at uniform or kaleidoscopic surfaces. But Moody and many of his guests claim success at having [spirits](#) visit them in the mirrored room. Moody, like [Charles Tart](#), is convinced that an [altered state of consciousness](#) is the gateway to the other world. Mirror gazing is just one of many methods Moody uses to try to induce an altered state.

Moody is also an advocate of [past life regression](#). He claims that he was skeptical about [reincarnation](#) until undergoing hypnotherapy during which he discovered that he had had [nine past lives](#). He claims that just about anyone can experience a "past-life journey" and that such trips help one overcome phobias, compulsions, addictions and depression, among other things.

On May 10, 1998, Moody succeeded Tart to the Bigelow Chair in Consciousness Studies at the [University of Nevada, Las Vegas](#). Upon his appointment, Moody was quoted as saying:

I am thrilled to have the opportunity to teach again, and believe

that UNLV should be applauded for its determination to adhere to the strictest standards of scientific rigor regarding claims of rational 'evidence' or 'proof' of the continuation of consciousness upon bodily death....the extraordinary states of consciousness commonly deemed paranormal are an enduring human concern that will not go away, and I have been hopeful that students with a serious interest in these topics would have a setting within which they could learn about paranormal phenomena from a non-ideological perspective.

He gave some indication of his non-ideological rigor by announcing that he has invited [Brian Weiss](#), M.D., "expert in past life regression," to conduct a community forum at UNLV. He also invited to UNLV [Dianne Arcangel](#) who, says Moody, is "an expert in the field of facilitated apparitions."

further reading

- [Have You Seen "The Light?"](#) Robert Baker
- [LifeAfterLife.Com](#)
- [A chiropractor interviews Dr. Moody](#)

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 [moment of silence](#)

[\(full\) moon](#) 

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confirmation bias

"It is the peculiar and perpetual error of the human understanding to be more moved and excited by affirmatives than by negatives." --Francis Bacon

Confirmation bias refers to a type of [selective thinking](#) whereby one tends to notice and to look for what confirms one's beliefs, and to ignore, not look for, or undervalue the relevance of what contradicts one's beliefs. For example, if one believes that during a [full moon](#) there is an increase in accidents, one will take notice when accidents occur during a full moon, but be inattentive to the moon when accidents occur during other times of the month. A tendency to do this over time unjustifiably strengthens one's belief in the relationship between the full moon and accidents.

This tendency to give more attention and weight to data that supports our preconceptions and beliefs than we do to contrary data is especially pernicious when our preconceptions and beliefs are little more than prejudices. If our beliefs are firmly established upon solid evidence and valid confirmatory experiments, the tendency to give more attention and weight to data that fits with our beliefs should not lead us astray as a rule. Of course, if we become blinded to evidence truly refuting a favored hypothesis, we have crossed the line from reasonableness to closed-mindedness.

Numerous studies have demonstrated that people generally give an excessive amount of value to confirmatory information, i.e., data which is positive or which supports a position (Gilovich, ch. 3). Thomas Gilovich speculates that the "most likely reason for the excessive influence of confirmatory information is that it is easier to deal with cognitively." It is much easier to see how a piece of data supports a position than it is to see how it might count against the position. Consider a typical [ESP](#) experiment or a seemingly [clairvoyant dream](#): successes are often unambiguous or data is easily massaged to count as a success, while negative instances require intellectual effort to even see them as negative or to consider them as significant. The tendency to give more attention and weight to the positive and the confirmatory has been shown to influence memory. When digging into our memories for data relevant to a position, we are more likely to recall data that confirms the position (Gilovich).

Researchers are sometimes guilty of confirmation bias by setting up experiments or framing their data in ways that will tend to confirm their hypotheses. They compound the problem by proceeding in ways that avoid dealing with data that would contradict their hypotheses. For example, [parapsychologists](#) are notorious for using [optional starting and stopping](#) in

their [ESP](#) research. Many social scientists also are guilty of confirmation bias, especially those who seek to establish correlations between ambiguous variables, such as birth order and 'radical ideas', during arbitrarily defined historical periods. If you define the beginning and end points of data collection regarding the idea of evolution in the way Frank Sulloway did in *Born to Rebel*, you arrive at significant correlations between functional birth order and tendency to accept or reject the theory of evolution. However, if you start with [Anaximander](#) and stop with St. Augustine, you will get quite different results, since the idea was universally rejected during that period. Or if you use as an example of a "radical idea" something like that of Philip Henry Gosse in *Creation (Omphalos): an attempt to untie the geological knot* (1857), you won't get support for your hypothesis. Gosse was more radical than Darwin in his attempt to reconcile geological data with creationism, but Gosse is nearly forgotten because his radical idea that God created everything, including fossils, at one time, was universally rejected. Gosse tried to reconcile the scientific data, which indicated a very old earth, with what had become the orthodox view that God created everything in 4004 B.C., as calculated by [Archbishop Ussher](#). Both firstborns and laterborns seem to have been unimpressed with this radical idea.

Experimenters might avoid or reduce confirmation bias by collaborating in experimental design with colleagues who hold contrary hypotheses. Individuals have to constantly remind themselves of this tendency and actively seek out data contrary to their beliefs. Since this is unnatural, it appears that the ordinary person is doomed to bias.

See related entries on [ad hoc hypothesis](#), [communal reinforcement](#), [control study](#), [Occam's razor](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), and [wishful thinking](#).

For examples of confirmation bias in action, see entries on ["alternative" health practices](#), [curses](#), [ESP](#), [intuitives](#), [lunar effects](#), [personology](#), [plant perception](#), [the Sokal hoax](#), [therapeutic touch](#) and [thought field therapy](#).

further reading

- [Coincidences: Remarkable or Random?](#) by Bruce Martin

[reader comments](#)

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[confabulation](#)

[conjuring](#)



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[Herbal eczema cures damage children](#) By **Oliver Wright**

[Herb \(St. John's Wort\) ineffective as anti-depressant](#)

[St. John's Wort Reduces Chemotherapy Effects Popular Herb May Seriously Dilute Effects of Many Medications](#) By **Jeanie Davis WebMD Medical News**

[Kava and liver damage](#)

[Some Herbs Boost Breast Cancer Risk Herbal Supplements to Fight Menopause Symptoms Can Be Dangerous](#) By **Liza Jane Maltin**

natural

Something *present in or produced by nature* is **natural**, such as an earthquake or typhoon, or a poisonous mushroom. Death is natural in the sense that to die is *to conform to the ordinary course of living things in nature*. For a diabetic to die from lack of insulin would be natural. It would be unnatural for a diabetic to inject natural or synthetic insulin, since injections are not natural. Rotting wood on your porch is natural in the sense that you have *not* used anything *artificial* to protect it. The smell of rotting garbage is natural. Meanness and cruelty are natural to some people; that is, they are *inherent, non-acquired personal traits*. Some people are apparently natural born killers. Squishing bugs and kicking cats is natural for some people, in the sense that they do such things *spontaneously, without reflecting* on their actions. Nudity is the only natural state for animals, even humans. All clothing is *artificial*, that is, *not natural*. So are the fillings in your teeth. So is all make-up and jewelry. Bearded men are natural. To shave is to do something unnatural. The present Pope commits an unnatural act every day!

Just because something is natural does not mean that it is good, safe or healthy. Herbs are natural but they are also drugs when used in the diagnosis, treatment, or prevention of a disease. The chemicals which comprise synthetic drugs are natural. [St. John's Wort](#) (*Hypericum perforatum*) is natural, but it is a drug. Why do some people say that they prefer St. John's Wort to drugs for depression? If someone said that he preferred Irish whiskey to alcohol, we'd think he was confused. St. John's Wort contains **hypericin**, which inhibits monoamine oxidase, a chemical associated with depression. In other words, St. John's Wort (hypericin) is an "MAO inhibitor". MAO inhibitors are commonly prescribed by medical doctors to treat depression. Other types of anti-depressants have become more popular because they have far fewer side effects. MAO inhibitors should not be used when a person eats substances containing the amino acid tyramine or bacteria with enzymes that can convert tyrosine to tyramine, viz., alcoholic beverages, products made with yeast, aged cheese, sour cream, liver, canned meats, salami, sausage, pickled herring, eggplant and soy sauce. Otherwise, convulsions, extremely high fever and death by natural causes may occur.

Some plants are lethal even though they are natural. But if you die from eating a lethal but natural plant, you will not be said to have died of natural causes. Ditto, if you die from being bitten by a poisonous snake whose venom is quite natural. If you die from lung cancer caused by smoking tobacco, a natural plant, you will, however, be said to have died of natural causes.

Fleas on dogs are natural. Flea collars are unnatural. Mosquitoes and flies are natural, though most people find them to be a nuisance and prefer the

unnatural comfort of mosquitoless nights and flyless barbecues. Eating meat might be a natural act, but eating cooked meat is unnatural. Most sauces put on meat are made with both natural and artificial ingredients. Salt is natural, but some healthy people avoid salt like the plague.

Civilization is unnatural. Indoor plumbing is unnatural. Corrective lenses are unnatural. So are automobiles. Think about that the next time you drive to the garden shop to get some natural fertilizer for your garden or to your naturalist herb shop for a little pick-me-up.

To have a broken arm set by a physician is unnatural. To let it heal spontaneously would be natural, even if debilitating for life. Getting a medical degree is unnatural. Foraging and experimenting by trial and error would be natural, even if often lethal. Children born with no brains or other monstrous deformities are natural. Brain surgery to remove a tumor is unnatural.

Anything supernatural is unnatural but is usually considered to be good by those who believe in the supernatural. Reading and writing are unnatural. Urinating whenever one has the urge is natural, but uncivilized. Marijuana is natural, so it must be good, right? LSD is unnatural, though mescaline is natural. Ergot is natural. Mold and bacteria and viruses are natural. Arsenic is natural. To strike back when struck is natural, but considered unchristian. Turning the other cheek when struck is considered Christian but it is unnatural.

Monogamy is natural among some mammals, but unnatural for most mammals. Reproduction is natural but marriage is unnatural. Using condoms is unnatural. Dying of AIDS is to die of natural causes. Herpes is natural. Raping women is natural to some men, but it is usually regarded as evil nonetheless. Pedophilia seems to be natural in some people, but does that make it good?

In fact, ultimately everything which is made is comprised of nothing but natural atoms, molecules, elements, or substances. So, if everything is basically natural, why do some people, such as the [naturopaths](#), make such a big fuss about using only what is natural? Such an obsession seems unhealthy, but it helps one avoid having to ask difficult questions about whether something really is good, safe or healthy. All you need to know is that something is "natural" and you don't have to think about its value.

further reading

[reader comments](#)

- **[SD search of 'herbs'](#)**

 [Myers-BriggsType
Indicator](#)

[naturalism](#) 

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sympathetic magic

Sympathetic magic is based on the metaphysical belief that like affects like. Sympathetic magic is the basis for most forms of [divination](#). The lines, shapes and patterns in entrails, stars, thrown dirt, folded paper, the palm of the hand (the longer the lifeline, the longer the life), etc., are believed to be magically connected to the empirical world--past, present and future. It is also the basis for such practices as sticking needles into figurines representing enemies, as is done in [voodoo](#). The pins and needles stuck in a doll are supposed to magically cause pain and suffering in the person the doll represents.

Sympathetic magic is the basis for [psychometry](#), the claim of [psychic detectives](#) that touching an item belonging to a victim gives magical contact with the victim. Barry Beyerstein believes that sympathetic magic is the basis for many New Age notions such as "resonance," the idea that if things can be mentally associated they can magically influence each other. Beyerstein also explains many notions of [graphologists](#) as little more than sympathetic magic, e.g., the notion that leaving wide spaces between letters indicates a proneness to isolation and loneliness because the wide spaces indicate someone who does not mix easily and is uncomfortable with closeness. One graphologist claims that a person betrays his sadistic nature if he crosses his t's with lines that look like whips.

Sympathetic magic is probably the basis for such notions as [karma](#), [synchronicity](#), eating the heart of a brave but defeated warrior foe, throwing spears at painted animals on cave walls, wearing the reindeer's antlers before the hunt, having rape rituals to increase the fertility of the crops, or taking Holy Communion to infuse the participant with Divinity. Sympathetic magic is surely the basis for [homeopathy](#) and remote healing.

Anthropologists consider magical thinking a precursor to scientific thinking. It is indicative of a concern with control over nature through understanding cause and effect. Nevertheless, the methods of magic, however empirical, are not scientific. Such thinking may seem charming when done by our ancestors living thousands of years ago, but today such thinking may indicate a profound ignorance or indifference towards science and a testable understanding of the world. Most of us, from time to time, undoubtedly slip into this primitive mode of thinking, but a bit of reflection should wake us up to the fact that oysters are not an aphrodisiac, having a bit of good luck is not likely to influence our chances of winning the lottery that day, and stabbing a photo of an enemy is not going to hurt her. It may be true that rubbing an amulet given you by your true love makes you feel her presence, but the feeling you have, however magical it may seem, has more to do with biology

and psychology than with metaphysics.

See related entry on [magick](#).

further reading

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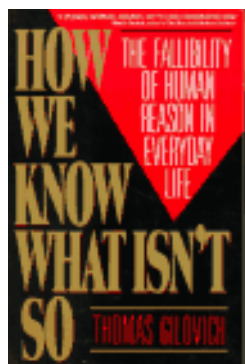


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regression and the regressive fallacy

The regressive fallacy is the failure to take into account natural and inevitable fluctuations of things when ascribing causes to them (Gilovich 1993, 26). Things like stock market prices, golf scores, and chronic back pain inevitably fluctuate. Periods of low prices, low scores, and little or no pain are eventually followed by periods of higher prices, scores, pain, etc. To ignore these natural fluctuations and tendencies leads to [self-deception](#) regarding their causes and to [post hoc reasoning](#).

For example, a professional golfer with chronic back pain or arthritis might try a copper bracelet on his wrist or magnetic insoles in his shoes. He is likely to try such gizmos when he is not playing or feeling well. He notices that his scores are improving and his pain is diminishing or gone. He concludes that the copper bracelet or the magnetic insole is the cause. It never dawns on him that the scores and the pain are probably improving due to natural and expected fluctuations. Nor does it occur to him that he could check a record of all his golf scores before he used the gizmo and see if the same kind of pattern has occurred frequently in the past. If he takes his average score as a base, most likely he would find that after a very low score he tended to shoot not a lower score but a higher score in the direction of his average. Likewise, he would find that after a very high score, he did not tend to shoot a higher score but rather would shoot a lower score in the direction of his average.

This tendency to move toward the average away from extremes was called "regression" by Sir Francis Galton in a study of the average heights of sons of very tall and very short parents. (The study was published in 1885 and was called "Regression Toward Mediocrity in Hereditary Stature.") He found that sons of very tall or very short parents tend to be tall or short, respectively, but not as tall or as short as their parents.

The professional golfer could check his scores because records are kept of each game played. Professional golfers frequently are featured in testimonials for some gizmo guaranteed to improve your golf score. Never does the golfer refer to a proper study done on golf scores (one which doesn't use [optional starting and stopping](#)) which demonstrates that the improvement, if any, is not due to natural fluctuation and regression?

Many people are led to believe in the causal effectiveness of worthless remedies because of the regressive fallacy. The intensity and duration of pain from arthritis, chronic backache, gout, etc., fluctuates. A remedy such as a [chiropractic](#) spinal manipulation or a magnetic belt is likely to be sought when the pain is at its worst. The pain in most cases would begin to lessen after it has peaked. It is easy to deceive ourselves into thinking that the

remedy we sought caused our reduction in pain. It is because of the ease with which we can deceive ourselves about causality in such matters, that scientists do [controlled experiments](#) to test causal claims.

Even if a quack remedy does not work, it is often not blamed for its ineffectiveness. For example, when comedian Pat Paulsen sought "alternative" medical treatment for cancer in Tijuana, his daughter did not criticize the treatment as useless when her father died. Paulsen had reportedly had some good days while on the "alternative" treatments, which would have been expected by natural fluctuation. His daughter claimed that the treatment worked, but had failed in her father's case because they had sought the treatment too late. When he was diagnosed with brain and colon cancer, his wife Noma was quoted in press reports as saying that the doctor in Tiajuana "is confident it can be cured. The doctors here say it can't. We like the ones over there a lot better." An official press release on his death claimed he died from pneumonia, not cancer. A family spokesman was quoted as saying: "His cancer was under control after undergoing alternative treatment in Mexico. He succumbed at 2pm on Thursday after complications brought on by pneumonia and kidney failure after recent non-cancer related surgery." His wife did not think the alternative therapy was worthless. She said: "We want to thank our team of doctors in Mexico who treated my husband humanely and with respect, and who were with him 24 hours a day trying to save his life."*

See related entries on [ad hoc hypothesis](#), [cold reading](#), [communal reinforcement](#), [control study](#), [Occam's razor](#), [optional starting and stopping](#), [pathological science](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#) and [wishful thinking](#).

further reading

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Search the Skeptic's Dictionary



applied kinesiology

Applied kinesiology is a New Age theory and therapy created by [George Goodheart, D.C.](#) According to the [International College of Applied Kinesiology](#), applied kinesiology "is based on chiropractic principles and requires manual manipulation of the spine, extremities and cranial bones as the structural basis of its procedures." However, Goodheart and his followers unite chiropractic with traditional Chinese medicine (among other things) and not only accept the notion of [ch'i](#) and the meridians of [acupuncture](#), they posit a universal intelligence of a spiritual nature running through the nervous system. They believe that muscles reflect the flow of ch'i and that by measuring muscle resistance one can determine the health of bodily organs. For example, practitioners claim that they can determine nutritional deficiencies by testing muscle resistance. This is an empirical claim and has been tested (Kenny, "Applied Kinesiology Unreliable for Assessing Nutrient Status," *Journal of the American Dietetic Association*, 88:698-704, 1988.). The test showed that the claim is false. Other claims made by practitioners are supported mainly by anecdotes supplied by advocates. No reputable scientific journal has ever published a paper supporting the validity of applied kinesiology, according to [Janice Lyons, R.N.](#)

Applied kinesiology should not be confused with kinesiology proper, which is the scientific study of the principles of mechanics and anatomy in relation to human movement.

See **related entries** on [acupuncture](#), ["alternative" health practices](#), [ch'i](#), and [chiropractic](#).

further reading

- ["Applied Kinesiology: A Christian Perspective,"](#) by Janice Lyons, R.N.
- [Applied Kinesiology](#) William T. Jarvis, Ph.D.



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aura therapy

Aura therapy is a type of New Age healing that detects and treats disease by reading and manipulating a person's [aura](#). According to aura therapists, the aura is an energy field surrounding the body and exhibits signs of physical disease before the body itself exhibits either signs or disease. There is no scientific basis for belief in auras, much less for the validity of aura therapy. Yet, like many other [alternative therapies](#), the popularity of such beliefs continues to grow.

The most popular form of aura therapy is [therapeutic touch](#). It is taught in many nursing programs and practiced in many hospitals, despite its lack of scientific support. There are many other forms of aura therapy that are just as valid as therapeutic touch, however.

[Aurasomatherapy](#) or [Aura-Soma](#) is described as "an holistic soul therapy in which the vibrational powers of colour, crystals and natural aromas combine with light in order to harmonise body, mind and spirit of mankind." Aura-Soma is allegedly an ancient healing practice that was re-discovered by [clairvoyant](#) Englishwoman Vicky Wall in the mid-eighties. She claims her special gift is the ability to see people's auras.

Beverli Rhodes uses [lazer-wand crystal energy](#) in her aura therapy. She says that crystals help in finding "disturbances in the auric field" and that

by using your laser crystal wand energies and your own energies, which will fuse with that of the wand, you can bring about relief and in time a cure. As crystals have their very own special electromagnetic field [the aura] this can be used to balance our own aura's. As disease appears firstly in the auric field, it would seem logical that one would begin to heal and clear the problem at the source.

Yes, very logical, indeed, in a world of assumptions such as that the proper way to assist stressed clients is by concentrating the lazer-wand on the 3rd eye (6th [Chakra](#)) area for 1 minute. Rhodes also claims that it is "necessary to re-programme your crystal first so that it may ready itself to clear the disharmony that exists in the auric field of the client in order to heal the specific illness." Do not try this at home alone! Reprogramming your crystal can be very dangerous!

Dr. J.M. Shah uses [Kirlian photography and gem therapy](#) to treat heart disease. Like other aura therapists, Dr. Shah believes that when disease enters

one of our [several bodies](#) there is reduction in energy. He takes Kirlian photographs of the fingers to discover disease. He assumes that changes in the [Kirlian](#) photos are due to changes in the aura rather than to changes in moisture or other natural phenomena. Once he has detected disease by photo misreading, he uses rubies to "open the heart" of those who have bad hearts. He advises, however, that the rubies have to be energized and their negativity removed before they can be effective in treatment. For supportive medical treatment, he puts photos of his patients in a "radiation cabinet" with rubies.

With such therapies available to help heal our many wounds, it is amazing that there is any sickness left in the world.

See related entries on [alternative therapies](#), [auras](#), [chakras](#), [crystals](#) and [Kirlian photography](#).

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[Indian temple
revives 'human
sacrifice'](#) (for those
who still think the
older a practice the
better)

Ayurvedic medicine & Deepak Chopra

If you can wiggle your toes with the mere flicker of an intention, why can't you reset your biological clock?

If you could live in the moment you would see the flavor of eternity and when you metabolize the experience of eternity your body doesn't age.

Ayurveda is the science of life and it has a very basic, simple kind of approach, which is that we are part of the universe and the universe is intelligent and the human body is part of the cosmic body, and the human mind is part of the cosmic mind, and the atom and the universe are exactly the same thing but with different form, and the more we are in touch with this deeper reality, from where everything comes, the more we will be able to heal ourselves and at the same time heal our planet. --[Deepak Chopra](#)

Ayurvedic medicine is an "alternative" medical practice that claims it is the traditional medicine of India. *Ayurveda* is based on two Sanskrit terms: *ayu* meaning life and *veda* meaning knowledge or science. Since the practice is said to be some 5,000 years old, what it considers to be knowledge or science may not coincide with the most updated information available to Western medicine. In any case, most of the ancient treatments are not recorded and what is called traditional Indian medicine is, for the most part, something developed in the 1980s by the Maharishi Mahesh Yogi ([Barrett](#)) who brought [Transcendental Meditation](#) to the western world.

Ayurvedic treatments are primarily [dietary](#) and [herbal](#). Patients are classified by body types, or *prakriti*, which are determined by proportions of the three [doshas](#). The doshas allegedly regulate mind-body harmony. Illness and disease are considered to be a matter of imbalance in the *doshas*. Treatment is aimed at restoring harmony or balance to the mind-body system. [Vata](#), composed of air and space, allegedly governs all movement in the mind and body and must be kept in good balance. Too much vata leads to "worries, insomnia, cramps and constipation....*Vata* controls blood flow, elimination of wastes, breathing and the movement of thoughts across the mind." *Vata* also controls the other two principles, *Pitta* and *Kapha*. [Pitta](#) is said to be composed of fire and water; it allegedly governs "all heat, metabolism and transformation in the mind and body. It controls how we digest food, how we metabolize our sensory perceptions, and how we discriminate between right and wrong." *Pitta* must be kept in balance, too. "Too much [*Pitta*] can lead to

anger, criticism, ulcers, rashes and thinning hair." [Kapha](#) consists of earth and water. "Kapha cements the elements in the body, providing the material for physical structure. This dosha maintains body resistance....Kapha lubricates the joints; provides moisture to the skin; helps to heal wounds; fills the spaces in the body; gives biological strength, vigor and stability; supports memory retention; gives energy to the heart and lungs and maintains immunity...Kapha is responsible for emotions of attachment, greed and long-standing envy; it is also expressed in tendencies toward calmness, forgiveness and love." Too much *Kapha* leads to lethargy and weight gain, as well as congestion and allergies.

On the basis of the above metaphysical physiology, [Ayurveda](#) recommends such things as: *to pacify Kapha eat spicy foods and avoid sweet foods, except for honey but don't heat the honey. Avoid tomatoes and nuts. Turkey is fine but avoid rabbit and pheasant. If you've got too much Pitta then try this: eat sweet foods and avoid the spicy. Eat nuts. To reduce Vata: eat sweet, sour and salty foods; avoid spicy foods. Nuts are good and so are dairy products.*

How any of the above is known, or how anyone could possibly test such claims, is apparently of little concern to Ayurvedic advocates.

meditation & quantum physics

Quantum healing is healing the bodymind from a quantum level. That means from a level which is not manifest at a sensory level. Our bodies ultimately are fields of information, intelligence and energy. Quantum healing involves a shift in the fields of energy information, so as to bring about a correction in an idea that has gone wrong. So quantum healing involves healing one mode of consciousness, mind, to bring about changes in another mode of consciousness, body. -
[-Deepak Chopra](#)

Meditation is also a significant therapy in Ayurveda. Except for the benefits of relaxation and meditation, there is no scientific evidence to support any of the many astounding claims made on behalf of Ayurvedic medicine. Even the claims made for the significant health benefits of Transcendental Meditation have been greatly exaggerated and distorted ([Wheeler](#)).

What are some of the claims made for Ayurveda? For these we turn to [Deepak Chopra](#), a graduate of Harvard Medical School and a former leader of the Maharishi Mahesh Yogi's [Transcendental Meditation](#) program. Chopra claims that perfect health is a matter of choice and that he can identify your *dosha* and its state of balance or imbalance simply by taking your pulse. He claims that allergies are usually caused by poor digestion. He claims you can prevent and reverse cataracts by brushing your teeth, scraping your tongue,

spitting into a cup of water, and washing your eyes for a few minutes with this mixture. According to Chopra, "contrary to our traditional notions of aging, we can learn to direct the way our bodies metabolize time" ([Wheeler](#)). Chopra also promotes [aromatherapy](#) based on the Ayurvedic metaphysical physiology. He sells [oils and spices](#) specifically aimed at appeasing *Vata*, *Pitta* or *Kapha*. Actually, what Chopra and other "alternative" healers sell is hope. Chopra gives hope to the dying that they will not die and hope to the living that they can live forever in perfect health. But his hope seems to be a false hope based on an unscientific imagination seeped in mysticism and cheerily dispensed gibberish. Science is unnecessary to test Ayurvedic claims since "the masters of Ayurvedic medicine can determine an herb's medicinal qualities by simply looking at it ([Wheeler](#))."

Dr. Chopra has done more than any other single person to popularize the Maharishi's Ayurvedic medicine in America, including some New Age energy concepts that boldly and falsely assert a connection between quantum physics and consciousness. According to Chopra, "We are each a localized field of energy and information with cybernetic feedback loops interacting within a nonlocal field of energy and information." He claims we can use "quantum healing" to overcome aging. Chopra believes that the mind heals by harmonizing or balancing the "quantum mechanical body" (his term for [prana](#) or [chi](#)). He says that "simply by localizing your awareness on a source of pain, you can cause healing to begin, for the body naturally sends healing energy wherever attention is drawn." Or, as he also puts it, "If you have happy thoughts, then you make happy molecules." This "quantum mysticism" has no basis in physics and represents a leap of the metaphysical imagination ([Stenger](#)).

The notion that ancient Hindu mysticism is just quantum physics wrapped in metaphysical garb seems to have originated with Fritjof Capra in his book *The Tao of Physics: An Exploration of the Parallels Between Modern Physics and Eastern Mysticism* (1975). The book's first two parts are excellent expositions on ancient religions and modern physics. The third part, which tries to connect the two is an abysmal failure and about the purest poppycock this side of Bombay. Nevertheless, it has been this third part which has influenced numerous New Age energy medicine advocates to claim that quantum physics proves the reality of everything from chi and prana to [ESP](#). The idea that there is such a connection is denied by most physicists but books like Capra's and Gary Zukav's *The Dancing Wu Li Masters: An Overview of the New Physics* (1976) overshadow and are much more popular than more sensible books written by physicists.

Chopra and other defenders of Ayurveda, following Capra and Zukav, are fond of claiming that modern physics has substantially validated ancient Hindu metaphysics. However, physicist Heinz R. Pagels, author of [The Cosmic Code: Quantum Physics as the Language of Nature](#) vehemently rejects the notion that there is any significant connection between the

discoveries of modern physicists and the metaphysical claims of Ayurveda. "No qualified physicist that I know would claim to find such a connection without knowingly committing fraud," [says Dr. Pagels](#).

The claim that the fields of modern physics have anything to do with the "field of consciousness" is false. The notion that what physicists call "the vacuum state" has anything to do with consciousness is nonsense. The claim that large numbers of people meditating helps reduce crime and war by creating a unified field of consciousness is foolishness of a high order. The presentation of the ideas of modern physics side by side, and apparently supportive of, the ideas of the Maharishi about pure consciousness can only be intended to deceive those who might not know any better.

Reading these materials authorized by the Maharishi causes me distress because I am a man who values the truth. To see the beautiful and profound ideas of modern physics, the labor of generations of scientists, so willfully perverted provokes a feeling of compassion for those who might be taken in by these distortions. I would like to be generous to the Maharishi and his movement because it supports world peace and other high ideals. But none of these ideals could possibly be realized within the framework of a philosophy that so willfully distorts scientific truth ([Pagels](#)).

What Chopra is peddling is quantum gibberish.

deception and expanding the market

As would be expected of a guru spreading false hope, Chopras' trustworthiness has been compromised. In 1991, Chopra, when president of the American Association of Ayurvedic Medicine, submitted a report to the *Journal of the American Medical Association*, along with Hari M. Sharma, MD, professor of pathology at Ohio State University College of Medicine, and Brihaspati Dev Triguna, an Ayurvedic practitioner in New Delhi, India. Chopra, Sharma and Triguna claimed they were disinterested authorities and were not affiliated with any organization that could profit by the publication of their article. But

they were intimately involved with the complex network of organizations that promote and sell the products and services about which they wrote. They misrepresented Maharishi Ayur-Veda as India's ancient system of healing, rather than what it is, a trademark line of "alternative health" products and services marketed since 1985 by the Maharishi Mahesh Yogi, the Hindu swami who founded the

Transcendental Meditation (TM) movement ([Skolnick](#)).

Chopra spends much of his time writing and lecturing from his base in California where he is not licensed to practice medicine. He charges \$25,000 per lecture performance, where he spouts out a few platitudes and give spiritual advice while warning against the ill effects of materialism. His audiences are apparently not troubled by his living in a \$2.5 million house in La Jolla, California, where he parks his green Jaguar, which he can easily afford since he has amassed millions of dollars from the sales of his books, tapes, herbs, appearances, etc. Chopra is much richer and certainly more famous than he ever was as an endocrinologist or as chief of staff at New England Memorial Hospital. He left traditional medicine behind in 1981 when Triguna convinced him that if he didn't make a change he'd get heart disease. Shortly after that he got involved in Transcendental Meditation. In 1984 Chopra met the Maharishi himself and in 1985 Chopra became director of the Maharishi Ayurveda Health Center for Stress Management in Lancaster, Massachusetts. Soon he was an international purveyor of herbs and tablets through [Maharishi Ayurvedic products](#).

Perhaps the greatest deception of Ayurveda is that it cares for the person, not just the body as traditional medicine does. As Chopra puts it, "The first question an Ayurvedic doctor asks is not, 'What disease does my patient have?' but, 'Who is my patient?'"* That may be the question, but it is not a person that the doctor is healing. It is the "quantum body" or the "mind-body"; it is the *dosha* that needs balancing. Taking a person's pulse and telling them their dosha is unbalanced and they should eat more nuts or less spicy foods, etc., hardly shows concern for the patient as a person. Not using a current photo on your web site or on the jacket of your latest book, which would show how you are aging, is deceptive, especially since you claim to know how to overcome aging.

Self-deception is rampant in the alternative health arena, and Chopra has had his share. In *Return of the Rishi* he reveals what attracted him to Transcendental Meditation: it helped him overcome his dependence on alcohol, tobacco and coffee. The man was stressed by his job and his lifestyle contributed to that stress. He committed the [pragmatic fallacy](#) and became a true believer because he was now happy. Fine, but he since has gone on to try to confirm TM and Ayurveda with quantum physics, pseudoscientific writings and seminars. Even though his [patients died](#) while he was claiming he had given them perfect health, he maintained his position. And, when association with TM itself became too stressful and a hindrance to his success, he left.* (Chopra had heard that Bill Moyers wouldn't include him in his PBS series *Healing and the Mind* because of Chopra's association with a "cult.") He now runs the [Chopra Center for Well Being](#) in La Jolla, California, where the mission is "to heal, to love, to transform and to serve." It is not a medical center, for Chopra has no license to practice medicine in California. It is a spiritual center, where you can come to "better understand the power of

your body, mind and spirit connection to both your inner and outer universe." Because many of those who come to this center are sick, one might call it a *faith* healing center. There are a few other things one might call it, but they might arouse Chopra's legal staff, who are fond of [suing critics of their employer](#).

Chopra has also [admitted](#) in so many words that his *Ageless Body, Timeless Mind: The Quantum Alternative to Growing Old* plagiarized Professor Robert Sapolsky's contribution to *Behavioral Endocrinology*. Sapolsky is the author of chapter 10, "Neuroendocrinology of the Stress-Response." He [sued Chopra in 1997](#) for lifting large chunks of his work without proper attribution.

Of course, [Chopra has a web site](#) where he will be honored to take your money for one of his many books, tapes, or seminars. We should not be too harsh with our guru, however. It is understandable that he would give up working in medicine in favor of working in religion. In medicine you are surrounded by sick people and constantly reminded of your own mortality. It is difficult work, often very stressful and unrewarding. As Chopra himself put it: "It's frustrating to see patients again and again, and to keep giving them sleeping pills, tranquilizers and antibiotics, for their hypertension or ulcers, when you know you're not getting rid of the problem or disease."* Also, while taking care of others, a physician might fail to take care of himself and come to require sleeping pills, tranquilizers, something to lower the blood pressure and relieve the stress in himself. In religion, on the other hand, you can surround yourself only with sycophants who demand to be deluded and deceived because it makes them feel so *healthy* and *happy*. By turning to metaphysics instead of biology, one avoids the risk of being proved wrong. It is much easier to dispense hope based on nothing to miserable people than it is to accept harsh and sometimes brutal reality while maintaining health, optimism and happiness. It is much easier for some people to face life by deceiving themselves into thinking they alone are in charge of what is real and what is true. It is much easier to find [confirming evidence](#) for a worldview than it is to do nuts-and-bolts research. It is certainly much more enjoyable to chat with [Oprah Winfrey](#) and rub elbows with the rich and famous than to watch another cancer patient die.

why are Chopra and Ayurveda so popular?

The popularity of Chopra and Ayurveda is a testament to the failure of modern life and modern medicine to satisfy deep longings for simplicity, trust, a clean and wholesome environment, something to counteract the fragmentation, alienation and isolation that many people feel.* Hope is a powerful narcotic. Representing peace and love, caring and respect, as well as esoteric knowledge for the masses, "alternative" medicines will always be popular. And, the fact is that the "alternatives" often put people like Chopra on a much healthier track than they were on before they got involved with

Ayurveda, [qigong](#), Polar Reflex Quantum Energy Dynamics (it may not exist yet, but give it time), etc. Most people would be better off if they followed some of the sensible recommendations of the "alternatives": eat less and don't stuff yourself with fatty and sugary foods with near zero nutritional value, relax, don't smoke or drink or use other drugs to try to make you feel better, don't take things so seriously, treat other people kindly and with respect, spend more time with friends and family building relationships, quit worrying about being so successful and rich or famous, be concerned about what you put into your body and what all of us are putting into our air and water. Philosophy can serve these interests. But most people also want some sort of assurance that this is not all there is, that This is NOT It. They want to believe in immortality and "alternatives" like Ayurveda fulfill this need. The hypocrisy of a materialist advising them that materialism is the root of all evil easily slips by. But I would ask, if Ayurveda is so wonderful and has been practiced in India for thousands of years, why doesn't Dr. Chopra return to India to live? Likewise, why don't all those who praise the wonders of traditional Chinese medicine (TCM) return to China? The answer seems obvious: the wonders of Ayurveda and TCM have been greatly exaggerated. China and India are the two largest countries in the world but there has not been a run of people in the west immigrating to either country. Why? Because the chances of living a healthier, wealthier, richer life are better in America than in either India or China. Neither country is the place anyone would hold up as a paradigm of healthy people. [China](#) ranks 81st, [India](#) ranks 134th and the USA ranks 24th in overall level of health, according to the World Health Organization. [Life expectancy](#) is much greater in North America than in China or India. [In 1998](#), life expectancy in the United States was 72.9 years for men and 83.3 years for women. In India the figures are 62.3 years for men and 63.7 years for women. China's life expectancy in 1998 was 68.3 years for men and 71.1 years for women. Does Deepak Chopra really believe that nutritional deficiency is a bigger problem in North America than in India? Does he really believe that people live longer, happier, healthier lives in India and China than here? If so, why does he stay? Can he say with a straight face: *I have come from the promised land to this barren desert and I will stay here to lead you to perfect health in my new Jaguar.*

I'll let Dr. Chopra have the last word:

I in fact don't believe in the existence of time. That's one thing I have to tell you, and the other is that I don't take myself or what I am doing seriously.*

See related entries on [alphanotics](#), [bioharmonics](#), [chi](#), [confirmation bias](#), [pragmatic fallacy](#), [prana](#), [self-deception](#), [therapeutic touch](#), and [transcendental meditation](#).

further reading

[reader comments](#)

- [Ayurvedic Mumbo-Jumbo](#) by Stephen Barrett, M.D.
- [Quantum Quackery](#) by Victor J. Stenger
- [Deepak Chopra and Maharishi Ayurvedic Medicine](#) by Thomas J. Wheeler, Ph.D.
- [The Maharhish Caper: Or How to Hoodwink Top Medical Journals](#) by Andrew A. Skolnick
- [Shameless Mind](#)
- [A letter from Heinz R. Pagels, Ph.D., Executive Director of The New York Academy of Sciences \(July 1, 1986\)](#)
- [What's Deepak Chopra's Secret?](#) by Gregory Dennis (New Age Journal, August 1994).
- [Lou Valentino on living with Deepak](#)
- [The art of the spiritual smackdown](#) by Stephen Lemons (Salon March 7, 2000)
- [It's all good: The appeal of Deepak Chopra](#) by David Beers (Salon May 10, 2001)

- [An Interview with Deepak Chopra](#) - Veronica Hay
- [Another interview](#) - Daniel Redwood
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March 21, 2001.

Chelation therapy
found useless in
first rigorous
study

chelation therapy

Chelation therapy consists of slow-drip IV injections of EDTA (ethylenediamine tetraacetic acid), a synthetic amino acid, combined with aerobic exercise, special diet and no smoking. EDTA treatment has been around since the 1940's, when it was developed to treat lead poisoning.. The word "chelate" is derived from the Greek word for claw and apparently refers to the alleged removal of plaque and calcium deposits from arteries and veins by EDTA. Advocates claim that there is ample evidence to support the claim that chelation can prevent and cure heart disease, stroke, senility, diabetic gangrene and many other vascular diseases. For example, the [unpublished Cypher report](#) collected data from several physicians who used chelation to treat patients with vascular diseases. Over 19,000 cases were studied and about 86% showed "a significant enhancement in the arterial perfusion of the upper and lower extremities, " according to James P. Carter, M.D., in *Racketeering in Medicine; Hippocrates Forsaken for Profit*. However, the treatments were carried out independently by different physicians and there were no [control groups](#). Lack of adequate controls in studies purporting to demonstrate the effectiveness of chelation has been a consistent criticism of skeptics. The evidence in favor of chelation as a cure for heart disease seems to consist mainly of [testimonials](#) and [subjective patient/physician reports](#). Advocates claim that it is too expensive to do scientifically controlled studies and that there is a conspiracy by the medical establishment to prevent such studies from being undertaken.

Critics of the therapy in the American Medical Association (AMA) and the Federal Drug Administration (FDA) claim that there is no good scientific evidence supporting the extravagant claims of advocates. Defenders of the therapy claim that the medical establishment has engaged in a half-century of deceit and conspiracy to suppress chelation because of fear it would cut into the profits made by drug therapy and surgery. Advocates claim that chelation is about 10 times cheaper than a coronary bypass with equal or better results. They also claim that scientific medicine bases treatment decisions on politics and economics, not on evidence from controlled studies.

Chelation therapy is not covered by Medicare nor will most insurance companies pay for it. The American Heart Association's Task Force on New and Unestablished Therapies reviewed the available literature on the use of chelation in treating arteriosclerotic heart disease. They found no scientific evidence to demonstrate any benefit from this form of therapy.

Chelation therapy is surely a testable therapy. Advocates maintain that it has been tested and proven to be an effective cure of vascular diseases. Skeptics, which includes the American Medical Association and the American Heart

Association, deny that studies support any such claims. Advocates claim that the medical establishment is more interested in making money than in curing diseases. They claim that EDTA is cheap and can't be patented, so there is no big money to be made by pharmaceutical firms. They also claim that surgery is preferred by the medical establishment because it is expensive. To accept the chelation advocates' argument is to accept the notion that the American medical establishment systematically suppresses evidence and persecutes anyone who challenges their monopoly. The conspiracy theory is argued at length by [Dr. James P. Carter](#).

Advocates of "[oral chelation](#)" claim it is much cheaper than traditional chelation therapy, but so far there is no charge of conspiracy by traditional chelation advocates, though they seem to consider "oral chelation" misleading and ineffective. One [advocate of "oral chelation"](#) claims it costs one tenth of what IV chelation costs and it can "Reduce Your Risk of Heart Attack by as much as 85%."

further reading

[reader comments](#)

- [Chelation Therapy - unsound claims and unproven therapy](#) by Saul Green, Ph.D.
- [The American Heart Association on Chelation](#)

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America*, \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

[Barrett, Stephen and Kurt Butler \(eds.\) *A Consumers Guide to Alternative Medicine : A Close Look at Homeopathy, Acupuncture, Faith-Healing, and Other Unconventional Treatments*; edited by \(Buffalo, N.Y. : Prometheus Books, 1992\).](#)

[Raso, Jack. *Mystical Diets : Paranormal, Spiritual, and Occult Nutrition Practices* \(Consumer Health Library\) \(Amherst, NY: Prometheus Books, 1993\).](#)

Search the Skeptic's Dictionary



cranosacral therapy

Craniosacral therapy (a.k.a. craniopathy and cranial osteopathy) is a [holistic](#) therapy that involves the manipulation of the skull bones (the cranium) and the sacrum to relieve pain and a variety of other ailments, including cancer. (The sacrum is a bone between the lumbar vertebrae and tail vertebrae, composed of five fused vertebrae that form the posterior pelvic wall.) The therapy was invented by osteopath William G. Sutherland in the 1930s. Another osteopath, John Upledger is the leading proponent of craniosacral therapy today. Like other holistic therapies, this one emphasizes subjective concepts such as energy, harmony, balance, rhythm and flow.

Craniosacral therapists claim to be able to detect a craniosacral "rhythm" in the cranium, sacrum, cerebrospinal fluid and the membranes which envelop the craniosacral system. The balance and flow of this rhythm is considered essential to good health. The rhythm is measured by the therapist's hands. Any needed or effected changes in rhythm are also detected only by the therapist's hands. No instrument is used to measure the rhythm or its changes, hence no systematic objective measurement of healthy versus unhealthy rhythms exists. The measurement, the therapy and the declared cure are all subjectively based. As one therapist puts it:

During the treatment, the client is usually supine on a table. The therapist assesses the patterns of energy in the body through touch at several "listening stations" and then decides where to start that day and how to focus the treatment. [Woodruff]

The same therapist maintains that the therapy is "a waste of time and money" for people who do not have faith in the therapy. Successful treatments, however, may well be due to the [placebo effect](#) and [subjective validation](#).

Skeptics note that the skull does not consist of moveable parts (unlike the jaw) and the only rhythm detectable in the cranium and cerebrospinal fluid is related to the cardiovascular system. When [tested](#), several therapists were unable to consistently come up with the same measurements of the alleged craniosacral rhythm.

See related entries on ["alternative" health practices](#), [chiropractic](#) and [therapeutic touch](#).

further reading

- [Dubious Aspects of Osteopathy](#) by Stephen Barrett, M.D.
- [Some Notes on Cranial Manipulative Therapy](#) by William T. Jarvis, Ph.D.
- [The Upledger Institute](#)
- [A defense of craniosacral therapy](#) by Dianne L. Woodruff, CMA, Ph.D.

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crystal power

A *crystal* is a solid formed by the solidification of chemicals, has a regularly repeating internal arrangement of atoms and molecules, and is bounded by external plane faces. Crystal particles form a variety of geometrical shapes due to their internal compressions. Crystals have aesthetic properties that have long made them attractive in jewelry. But they also have some properties that make them very important to the electronics and optical industries. Today, crystals are used in just about every type of modern technology.

For centuries, crystals and other gems have been desired for their alleged magical healing and mystical paranormal powers. This belief continues today among occultists and New Age healers, even though it is based on nothing more than [testimonials](#), [the placebo effect](#), [selective thinking](#), [wishful thinking](#), [the Forer effect](#), [sympathetic magic](#), and [communal reinforcement](#). There is no scientific evidence that crystals are conduits of magical energies useful for healing and protection, or for [telling the future](#).

We can dismiss the pre-scientific belief in the magical powers of crystals and gemstones as due to the lack of scientific knowledge. Modern occultists, however, distort and falsify scientific knowledge in order to promote belief in their crystal products. According to the purveyors of this crystalline [pseudoscience](#), crystals channel good "energy" and ward off bad "energy." They carry "vibrations" that resonate with healing "frequencies," work with the [chakras](#) and help balance [yin and yang](#). Crystals allegedly affect the emotions and can be used not only for physical healing, but for emotional problems as well. [Crystals can not only help with emotional healing, but with self-expression, creativity, meditation, and the immune system](#). None of these claims is backed by any scientific evidence.

Today, [crystal wands](#) are used to heal [auras](#) in [aura therapy](#). But one of the more egregious pseudoscientific claims regarding crystals is that, if arranged properly, they can provide protection against harmful [electromagnetic forces](#) such as those that are emitted from computer monitors, cellular phones, microwave ovens, hair dryers, power lines, and other people. The Bioelectric Shield was invented by a chiropractor from Montana, Charles Brown, who claims he heard voices in his head and had visions in his bed as to how to arrange crystals in the shape of a flying saucer in order to provide this protection. Marketed as "[Jewelry With A Purpose](#)," his bioelectric shields are sold for anywhere from \$139 to over a thousand dollars. Cherie Blair, the wife of England's prime minister, wears one of these magical pendants. They are said to be "medically proven" and "based on Nobel Prize winning physics." Even if the claims about the protective power of these pendants

were true, it would be necessary to envelop your entire body in one to achieve the desired result. By hanging a little piece of jewelry around the neck, you might be able to protect a small part of the throat, however.

The New Age idea that crystals can harness and direct energy seems to be based upon a misunderstanding of one of the more curious characteristics of certain crystals, namely, that they produce an electrical charge when compressed. This is known as the piezoelectric effect and was discovered in 1880 by Pierre and Jacques Curie. Other technological developments had to occur before the piezoelectric effect could be put to use, however, and it was not until the 1950s that the piezoelectric effect could be put to general use in record player needles and a variety of measuring devices. Nowadays, these devices ["are used in almost every conceivable application requiring accurate measurement and recording of dynamic changes in mechanical variables such as pressure, force and acceleration."](#)

The piezoelectric effect, however, does not give crystals healing or protective power, despite the claims of those who use and sell crystals in New Age and neo-pagan occultist shops. However, wearing crystals seems to give some people a *feeling* of protection. This, and their aesthetic qualities, seem to be the only virtues of crystal jewelry.

Nor do crystals work any better than animal organs for divining the future, although grinding crystals for fortune telling is more humane and sanitary than disembowelment of poor creatures who don't know yesterday from tomorrow.

See related entry on [crystal skulls](#).

further reading

- [The CorreX Files - Crystal Healing](#) (The site is now known as the **Correx Archives** due to legal threats from 20th Century Fox Alien Network for breach of copyright)
- [The Piezoelectric Effect, Theory, Design and Usage](#)
- [Healing Properties of Crystals, Gems, and Stones](#)
- ["Crystal healing all in the mind,"](#) by John Woodcock and Jennifer Hill

Chittenden, Maurice. "Cherie's magic crystals put the new age in new Labour," *The Sunday Times* (London), July 19, 1998.

[Jerome, Lawrence E. *Crystal Power - The Ultimate Placebo Effect* \(Amherst,](#)

[NY: Prometheus, 1996\).](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

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[crystal skulls](#) 

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DHEA

DHEA, i.e., dehydroepiandrosterone, is a natural steroid hormone produced from cholesterol by the adrenal glands. DHEA is chemically similar to testosterone and estrogen and is easily converted into those hormones. DHEA production peaks in early adulthood and declines in production with age in both men and women. Thus, many diseases which correlate with age also correlate with low levels of DHEA production. There has been no scientific evidence, however, that low levels of DHEA is a [significant causal factor](#) in the development of diseases associated with aging. Nor is there any evidence that increasing DHEA slows down, stops or reverses the aging process.

For years DHEA was promoted as a miracle weight loss drug, based upon some rodent studies which indicated that DHEA was effective in controlling obesity in rats and mice. Other rodent studies found similar promising results for DHEA in preventing cancer, arteriosclerosis and diabetes. Studies on humans have not yet validated these results.

Despite the lack of sufficient scientific evidence, DHEA supplements are being promoted as having therapeutic effects in many chronic conditions including ["cardiovascular disease, diabetes, hypercholesterolemia, obesity, multiple sclerosis, Parkinson's disease, Alzheimer's disease, disorders of the immune system, depression, and osteoporosis."](#) The healthy truth is that very little is known about DHEA. Long-term effects of self-medicating by using DHEA supplements may be beneficial, neutral or harmful, but it is unlikely that DHEA supplements will affect each individual in the same way. Increasing DHEA may well increase testosterone, which in men may lead to prostate enlargement and in women may lead to facial hair. Increasing estrogen may help prevent osteoporosis or heart disease but may increase the risk of breast cancer. In short, taking DHEA is a high-risk gamble based on insubstantial evidence.

Those doing research on DHEA, such as Dr. Samuel Yen of UC San Diego and Dr. John Nestler of Virginia Commonwealth University, advise caution and do not recommend taking DHEA. Dr. Arthur Feinberg, an associate editor of *HealthNews*, advises against taking DHEA. "The potential for irreversible side effects is real. So given that there's no convincing evidence for any benefit of DHEA, I feel strongly that people should not take it." The research of Dr. Elizabeth Barrett-Connor, professor and chair, department of family and preventive medicine at the University of California, San Diego, is cited by promoters of DHEA as evidence that DHEA is effective in fighting cardiovascular disease. However, Dr. Barret-Conner says "DHEA is the snake oil of the '90s. It makes me very nervous that people are using a drug we don't know anything about. I won't recommend it "

The main voices in favor of DHEA as a miracle drug are those who are selling it or who make a good living selling books or programs advocating "natural cures."

One advocate of DHEA, Dr. Ray Sahelian, warns that high doses (25-50mg daily) can be bad for your heart. It can trigger heart palpitations, irregular heartbeats and even heart attack. His advice is to take no more than 10mg a day and avoid it altogether for at least one or two weeks a month.

further reading

[reader comments](#)

- ["DHEA: Ignore the Hype"](#) by P.J. Skerret
- [Quackwatch on "Dietary Supplements," Herbs, and Hormones](#)
- [The Expanded Dictionary of Metaphysical Healthcare: Alternative Medicine, Paranormal Healing, and Related Methods](#) by Jack Raso, M.S., R.D.
- [DHEA: Hype or health?](#) Mayo Clinic

[Barrett, Stephen and Kurt Butler \(eds.\) *A Consumers Guide to Alternative Medicine : A Close Look at Homeopathy, Acupuncture, Faith-Healing, and Other Unconventional Treatments*; edited by \(Buffalo, N.Y. : Prometheus Books, 1992\).](#)

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America*, \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

[Raso, Jack. *"Alternative" Healthcare: A Comprehensive Guide* \(Amherst, NY: Prometheus Books, 1994\).](#)

[Sahelian, Ray. *Dhea : A Practical Guide* \(Avery Pub Group, 1996\).](#)

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ear candling (coning)

Ear candling or coning is a method of cleaning the ears and the mind, which allegedly alleviates a host of physical, emotional and spiritual ailments. A hollow candle is stuck into the ear and lit, allegedly sucking out earwax and negative energy. The process is [ineffective](#) for earwax removal. I don't know how anyone knows whether it sucks out energy, positive *or* negative.

What wax appears in the cone is from the melted candle, not from the ears. The suction created by the coning flame is insufficient to remove wax, which, by the way, is good for you. [It traps dust and dirt and helps fight infections.](#)

Though some people fear that coning will leave them mindless, the only real dangers are from [burning, infection, obstruction of the ear canal and perforation of the eardrum.](#)

The origin of this unnatural practice has been given as ancient Tibet, China, India, Egypt, and pre-Columbian America. Even [Atlantis](#) is cited as a possible origin. In other words, we don't have a clue how this thing got started.

We also have no idea how far this will go, but [Butt Candling](#) could be the end. Another candle in the dark blown out by an ill wind?

further reading

- [Ear Candling](#) by Lisa M.L. Dryer (skeptical)
- [Keeping Ears Clean](#) by Robert Jackler, MD

Seely, D.R., S.M. Quigley and A.W. Langman. "Ear candles--efficacy and safety," *Laryngoscope* 106 (10): 1226-9.

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Dr. Fritz

Dr. Fritz is a ghost who invades the bodies of Brazilians and turns them into healers. His first victim, Zé Arigó (1918-1971), informed the world that he was [channeling](#) Dr. Adolf Fritz, a German doctor who had died in World War I. The search for this Adolf Fritz has been even less successful than the search for [Bridey Murphy](#). In short, no proof of his ever existing has been brought forth. No matter. Faith healing is very big in Brazil and Arigó made quite a name for himself as a witch doctor or shaman. He was thought to be possessed by the devil but it turned out to be a dead German doctor who, for reasons known only to Arigó and the Lord, took over Arigó's body and started writing illegible prescriptions for sick people. Only Arigó's brother, a pharmacist, could read the prescriptions. People came from far and wide to be cured by Dr. Fritz. His reputation soared after it was alleged that he did a bit of [psychic surgery](#) and removed a cancerous tumor from the lung of a well-known Brazilian Senator. For twenty years Arigó's fame spread as he "cured" thousands of people, including the daughter of Brazil's president. Despite his fame, he was twice convicted of the illegal practice of medicine. Arigó died in an automobile crash in 1971.

Dr. Fritz was not done with his work, however, and soon slipped into the body of another Brazilian, and when he died in a violent crash, Dr. Fritz picked another body to invade. He has done this several times. Two of his most famous invasions have been in the bodies of Edson Queiroz from Recife and Rubens Farias Jr. (1954-) of São Paulo, the current channeler of Dr. Fritz. Rumor has it that [Christopher Reeve](#) has been treated by Rubens Farias Jr. The latest version of Dr. Fritz is well-educated and heals the [astral body](#). Rubens Farias Jr. seems to have abandoned his Catholic training for the teachings of Rudolf Steiner's anthroposophy or Madame Blavatsky's theosophy. Like them he favors a mysticism which maintains that the astral body, a duplicate of the physical body but comprised of a finer substance, is what needs to be treated when one is ill. The physical body can be cured by treating the astral body with "energy healing." But only special mystics can do this. Unfortunately, Dr. Fritz predicts a violent death for Farias Jr. so he won't be practicing his mystical magic for much longer.



Despite being accused of the illegal practice of medicine without a license, Farias Jr. has unending lines of people waiting to be cured. The strong belief in witch doctors in Brazil is traced to the African-Brazilian religion of Candomblé, but the latest Dr. Fritz has shown that Brazilians can be dazzled by New Age mystical notions as well.

further reading

- [Dr. Fritz](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural*, \(N.Y.: St. Martin's Press, 1995\).](#)

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Facilitated Communication (FC)

FC is amazing because it has surpassed all other junk science fads, affecting families, schools, universities, the law, and even the arts. --

Brian J. Gorman

Facilitated Communication (FC) is a technique which allegedly allows communication by those who were previously unable to communicate by speech or signs due to autism, mental retardation, brain damage, or such diseases as cerebral palsy. The technique involves a facilitator who places her hand over that of the patient's hand, arm or wrist, which is placed on a board or keyboard with letters, words or pictures. The patient is allegedly able to communicate through his or her hand to the hand of the facilitator which then is guided to a letter, word or picture, spelling out words or expressing complete thoughts. Through their facilitators, previously mute patients recite poems, carry on high level intellectual conversations, or simply communicate. Parents are grateful to discover that their child is not hopelessly retarded but is either normal or above normal in intelligence. FC allows their children to demonstrate their intelligence; it provides them with a vehicle heretofore denied them. But is it really their child who is communicating? Most skeptics believe that the only one doing the communication is the facilitator. The American Psychological Association has issued a [position paper on FC](#), stating that "Studies have repeatedly demonstrated that facilitated communication is not a scientifically valid technique for individuals with autism or mental retardation" and describing FC as "a controversial and unproved communicative procedure with no scientifically demonstrated support for its efficacy."

Facilitated Communication therapy began in Australia with Rosemary Crossley. The center for FC in the United States is Syracuse University, which houses the [Facilitated Communication Institute](#) (FCI) in their School of Education. The FC Institute was established in 1992. It conducts research, provides training to teach people to become facilitators, hosts seminars and conferences, publishes a quarterly newsletter and produces and sells materials promoting FC, including a six-part video series for \$50 per video (\$250 for the series).

While several studies have indicated that facilitated communication does tap into the mind of a person who heretofore had been incommunicado, most studies have shown that facilitated communication only taps into the beliefs and expectations of the facilitator. Many control studies have failed to produce strong evidence that facilitated communication works. Defenders of FC routinely criticize as insignificant or malicious those studies that fail to validate FC. Yet, it is unlikely that there is a massive conspiracy on the part of

all those who have done research on this topic and have failed to arrive at findings agreeable to the FCI.

There have been numerous critics of FC, including [Gina Green, Ph.D.](#), Director of Research at the New England Center for Autism, Southboro, Massachusetts, and Associate Scientist at the E.K. Shriver Center, Waltham, Massachusetts, and Howard C. Shane, Ph.D., Director of the Communication Enhancement Center, Department of Otolaryngology and Communication Disorders at Children's Hospital, Boston, and Associate Professor of Otolaryngology in the Harvard Medical School. A very damaging, detailed criticism was presented on PBS's "Frontline", October 19, 1993. The program was repeated December 17, 1996, and added that since the first showing, Syracuse University has claimed to have done three studies which verify the reality and effectiveness of FC, while thirty other studies done elsewhere have concluded just the opposite.

The *Frontline* program showed facilitators allegedly describing what their clients were viewing, when it was clear their clients' heads were tilted so far back they couldn't have been viewing anything but the ceiling. When facilitators could not see an object which their client could see (a solid screen blocked each from seeing what the other was seeing) they routinely typed out the wrong answer. Furthermore, FC clients routinely use a flat board or keyboard, over which the facilitator holds their pointing finger. Even the most expert typist could not routinely hit correct letters without some reference as a starting point. (Try looking away from your keyboard and typing a sentence using just one finger held in the air above the keyboard.) Facilitators routinely look at the keyboard; clients do not. The messages' basic coherence indicates that they most probably are produced by someone who is looking at the keyboard.

Nevertheless, there are many [testimonials](#) supporting FC, namely, letters from clients who are grateful to FC for allowing them to show to the world that they are not retarded or stupid. Some of them may be from people who have been genuinely helped by FC. It seems that the FCI treats the retarded, autistic and those with cerebral palsy. I have had several students with cerebral palsy. As students, they have been no better and no worse than most of my other students. They have used assistants who helped translate their communication for me. Usually, the student had a card (with letters or words or pictures) on his or her lap. The student would point to letters or words and sometimes speak; the assistant would translate for me. Anyone familiar with Helen Keller, Stephen Hawking or Christy Brown knows that blindness, deafness, cerebral palsy, multiple sclerosis, [amyotrophic lateral sclerosis](#) (ALS), or physical or neurological disorders, do not necessarily affect the intellect. There is no necessary connection between a physical handicap and a mental handicap. We also know that such people often require an assistant to facilitate their communication. But what facilitators do to help the likes of a Hawking or a Brown is a far cry from what those in the facilitated

communication business are doing.

It may well be that some of those helped by FC suffer from cerebral palsy and are mentally normal or gifted. Their facilitators help them communicate their thoughts. But the vast majority of FC clients apparently are mentally retarded or autistic. Their facilitators appear to be reporting their own thoughts, not their patient's thoughts. Interestingly, the facilitators are genuinely shocked when they discover that they are not really communicating their patient's thoughts. Their reaction is similar to that of [dowsers](#) and others with "special powers" who, when tested under controlled conditions, find they don't have any special powers at all.

If FC worked one would think that it would be easy to test by letting several different facilitators be tested with the same client under a variety of controlled conditions. If different "personalities" emerged, depending on the facilitator, that would indicate that the facilitator is controlling the communication. But, believers in FC claim that it only works when a special bond has been established between facilitator and patient. It is interesting that the parents and other loved ones who have been bonding with the patient for years are unable to be facilitators with their own children. FC needs a kind stranger to work. And when the kind strangers and their patients are put to the test, they generally fail. We are told that is because the conditions made them nervous. These [ad hoc](#) excuses sound familiar; they sound like the complaints of [parapsychologists](#).

Despite much criticism and many experiments demonstrating that the messages, poems, brilliant discourses, etc., being transmitted by the facilitators originate in the facilitators themselves, the FC Institute is going strong. With support groups all over the world and a respectable place at a respectable university, there is little chance that FC will soon fade away. Those within the FC movement are convinced FC "works." Skeptics think the evidence is in and FC is a delusion for the most part. It is also a *dangerous* delusion. Critics have noted a similarity between FC therapy and [repressed memory therapy](#): patients are accusing their parents and others of having sexually abused them. Facilitators are taught that something like 13% of their clients have been sexually abused. This information may unconsciously influence their work. The facilitator cannot imagine that he/she is the source of the horrible charges being expressed. Neither can school administrators or law enforcement authorities who believe FC is a magical way to tap into the thoughts of the autistic or the severely retarded. With repressed memory therapy the evidence emerges when a "[repressed memory](#)" is brought to light or when a child is interrogated by therapists trained to treat sexually abused children. There is overwhelming evidence that many repressed memories of sexual abuse, as well as many "memories" of interrogated children originate in the minds and words of therapists who suggest and otherwise plant them in their patients' minds. Similar findings have been made with FC: facilitators report sexual abuse and their messages have been used to falsely charge

parents and others with sexual abuse of mentally and physically handicapped persons.

The criticisms of FC as another therapy leading to a witch-hunt, turning decent parents into accused molesters of their handicapped children are not without justification. How is one to defend oneself against an allegation made by someone who can never be interrogated directly? Missy Morton, an expert from the FC Institute suggests the following:

One facilitator can in any given case be mistaken, or can be influencing the person, and as a precaution it is helpful to have the message repeated to a second facilitator. If this is not immediately feasible a decision has to be taken as to whether the situation will allow any decision to wait until a second facilitator can be introduced. If with a second facilitator the message is confirmed in detail then it may be taken as confirmed that an allegation has been made.

("Disclosures of Abuse through Facilitated Communication: Getting and Giving Support," Missy Morton, Facilitated Communication Institute Syracuse University Division of Special Education and Rehabilitation, May 1992.)

If there were evidence that facilitators were usually reporting the thoughts of their clients, there would still be concern for ensuring that the rights of the accused were not abused. But as the evidence is overwhelming that in most cases of FC, the facilitator is reporting his or her own thoughts, the effort to ensure against false accusations should be enormous. Yet, those in the forefront of the movement indicate how trivial they take the problem to be when they focus on problems of ambiguity. Here is Ms. Morton's warning issued to facilitators:

Facilitated communication is never as fast or as fluent as normal speech. Messages tend to be short, even telegraphic, and may omit grammatical bridges. It is not always clear what message the person is trying to get across with the words he or she has spelt out.

The message may be incomplete;

One person spelt out MY FATHER IS F...ING ME - clear enough, you would think, if the facilitator hadn't carried on to get MY FATHER IS F...ING ME AROUND.

The letters or words chosen may not be those that the student really intended.

This way of dealing with ambiguous communication seems hopelessly

inadequate. What is needed is some way to prevent facilitators from unjustly accusing parents of heinous acts against their children. It is likely that if most of the facilitators kept reporting sexual abuses, this movement would have gotten nowhere. The grieving, hopeful parents would never put up with such abuse.

further reading

[reader comments](#)

- [AN EXPERIMENTAL ANALYSIS OF FACILITATED COMMUNICATION](#) by Barbara B. Montee, Raymond G. Miltenberger and David Wittrock NORTH DAKOTA STATE UNIVERSITY
- ["Facilitated Communication: Mental Miracle or Sleight of Hand?"](#) by Dr. Gina Green
- ["A History of Facilitated Communication: Science, Pseudoscience, and Antiscience: Science Working Group on Facilitated Communication"](#) from the *American Psychologist* (1995)
- [Resolution on Facilitated Communication by the American Psychological Association \(August 14, 1994\)](#)
- [Rocky Mountain Skeptics on Facilitated Communication](#)
- [Review of "Crazy" Therapies by Singer and Lalich](#)
- [Autism Resources](#)
- [The Facilitated Communication Institute at Syracuse University](#)
- [Chris Borthwick's Annotated Bibliography](#) and his [Facilitated Communication Training](#)
- [FC Digest](#)

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[face on Mars](#)



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holistic medicine

Holistic medicine refers to alternative health practices which claim to treat "the whole person." To holistic practitioners, a person is not just a body with physical parts and systems, but is a spiritual being as well. The mind and the emotions are believed to be connected to this spirit, as well as to the body. Holistic practitioners are truly *alternative* in the sense that they often avoid surgery or drugs as treatments, though they are quite fond of meditation, prayer, herbs, vitamins, minerals and exotic diets as treatments for a variety of ailments.

See **related entry** on [alternative health practices](#).

further reading

- [Holistic Medicine](#) from the British Columbia Cancer Agency
- [Institute of Holistic Computer Wellness](#)

[Glymour, Clark and Douglas Stalker, eds. *Examining Holistic Medicine*, \(Buffalo, N.Y.: Prometheus, 1985\).](#)



joy touch

Joy touch is a meditative technique developed by Pete Sanders. He says it can help people lose weight, feel good, relax, quit smoking, eliminate life-threatening diseases, face the dentist, overcome fear of paranoia, transcend the body, get off drugs, become indifferent to the daily urges to rage and vent, etc.

The technique is reminiscent of meditating on the third eye in the middle of the forehead while silently humming OM! Sanders' twist is to have you imagine a line from the center of your forehead to the center of your brain (the site of the septum pellucidum). Then, imagine gently brushing that region of the brain.

Sanders teaches his discovery of joy touch (\$25 for a 2.5 hour session) in Sedona, Arizona, a New Age mecca for those in search of higher forms of consciousness. He is one of a rare breed--a faith healer who does not claim to be a psychologist or psychotherapist. (He claims to have an undergraduate degree from MIT in biomedical chemistry.) He is also the author of *You Are Psychic!*

The "scientific" theory behind joy touch is explained this way by Sanders: the septum pellucidum is used as a remote control for the hypothalamus, generally considered the brain's pleasure center. The septum pellucidum has nerve connections to the hypothalamus and stimulates it directly. Exhilarating relief may come in 2 or 3 seconds and last as long as 5 to 30 minutes. Of course, any relief felt may be due to [the placebo effect](#).

The critical thinker might think of applying [Occam's razor](#) and consider a direct imaginary massage of the hypothalamus itself, eliminating the seemingly superfluous step of sending massage ripples from the septum pellucidum. A word of caution: Do not try this at home! Sanders warns that since the hypothalamus is very close to the rage and anxiety centers of the limbic system within the brain, trying to stimulate the hypothalamus directly might backfire. Instead of finding oneself in a state of stoic [ataraxia](#) you might find yourself catatonic or enraged beyond the point of recovery. This may be dangerous to your health, but it could lead to a new career on talkback radio or TV.

See related entries on [alternative health practices](#), [the placebo effect](#), and [self-deception](#).



[jogini](#)

[Carl Jung](#)



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macrobiotics

Macrobiotics is a way of life characterized by a special diet said to optimize the balance of [yin and yang](#). George Ohsawa (1893-1966) started the macrobiotics movement with the publication of his *Zen Macrobiotics* in 1965. Michio Kushi popularized the movement in the United States. The basics of the diet itself were established by Sagen Ishizuka, a 19th century Japanese army doctor.

Ishizuka claimed that foods have *yinness* and *yangness*, and that a proper diet balances yin and yang. Ohsawa makes such claims as that schizophrenia is a yin disease and one who is so afflicted should drink yang fluids. Kushi makes such claims as that cancer "is the body's own defense mechanism to protect itself against long-term dietary and environmental abuse." How he knows this is a mystery. There is no reputable evidence that a macrobiotic diet is beneficial for cancer patients. The only reports of efficacy are testimonials by patients, many of whom received traditional medical treatment, according to the American Cancer Society.*

If a macrobiotic diet is healthy it is by accident, since foods are selected not for their physical or nutritional qualities, but for their metaphysical properties. Or, it is quite likely that many people, like its founders, improve physically on the diet not for what they take in but for what they discontinue, such as refined foods, meat, milk, and other animal products. All assignment of metaphysical properties to foods is arbitrary, but may be based on [sympathetic magic](#).

The macrobiotic diet consists mainly of whole grains, vegetables, and beans.

See **related entry** on [alternative health practices](#).

further reading

[reader comments](#)

- [Quackwatch on macrobiotics](#)
- "[macrobiotics](#)" in Jack Raso's *Dictionary of Metaphysical Healthcare*
- [WebMD on the macrobiotic diet](#)
- [Macrobiotic and Zen diets](#) British Columbia Cancer Agency
- [The History of Macrobiotics](#)

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America*\(Amherst, N.Y.: Prometheus Books, 1993\).](#)

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[Massage Therapy:
Riddled with
Quackery](#) by Stephen
Barrett, M.D.

massage therapy

A massage is the rubbing or kneading of parts of the body to aid circulation or to relax the muscles. Massage therapy is a massage which includes a metaphysical explanation usually couched in terms of "balancing" some sort of "energy."

A massage is usually relaxing and usually feels good. Most of us, however, could not explain the physical and physiological mechanisms causing the relaxation and pleasure. Most of us probably suspect it has something to do with the enjoyment of being touched by another person, and with the physical movement of muscles and other body parts.

Most of us know from experience how the touch of another person can be soothing and comforting. Massage therapists claim to understand the metaphysical reasons for the uplifting and relaxing effect of massage. Their explanations vary. Here are a few culled from an article in *The Davis Enterprise* [January 10, 1993, p. C-1 and C-3]. The article features local "**massage therapist**" Karen Khamashta using Ortho-Bionomy, [Reflexology](#), and [Polarity therapy](#).

[Ortho-Bionomy](#) works by contacting the body's "trigger points." According to this theory, when a trigger point is contacted, you "immediately relieve pain and restore the body's natural balance and rhythm."

[Reflexology](#) works by allegedly unblocking the 7,200 nerve endings in each foot so that they can respond to all of the glands, organs and other parts of the body and improve the blood supply as well. This supposedly helps the body "reach a balanced state."

[Polarity therapy](#) is based on "balancing the life energy that moves through every part of the body...and...moves in currents, or channels within and around the body." Polarity therapy "attempts to eliminate blockages in these channels which can cause imbalance and illness." The theory is that "if the body's currents are balanced, the person relaxes and is able to heal more efficiently." Polarity therapy is a kind of acupuncture without the needles. In acupuncture the metaphysical energy that gets blocked is known as [chi](#).

Another massage therapist, Christy Freidrich says "A lot of what I do is to try to help people with their structural balance. Over a period of time, people end up learning more about structure and how it works."

Massage therapy sounds as if it has as its goal something similar to

[therapeutic "touch"](#)--restoring harmony and balance to one's life energy. But the massage therapist uses "[palpation](#)" for assessment of ... energy blockages", while the therapeutic touch practitioner waves her hands over your [aura](#).

Massage therapists who are certified by the [National Certification Board for Therapeutic Massage and Bodywork](#) must take 500 hours of education classes and pass an examination. They must know some basic anatomy and physiology, as well as some first-aid. Despite the emphasis on balancing energy, none of the practice questions provided by the NCBTMB involve metaphysics.

[The American Massage Therapy Association](#) claims that

Research shows [massage] reduces the heart rate, lowers blood pressure, increases blood circulation and lymph flow, relaxes muscles, improves range of motion, and increases endorphins, the body's natural painkillers. Therapeutic massage enhances medical treatment and helps people feel less anxious and stressed, relaxed yet more alert.

They don't mention who did the research and where one might verify these claims. Nor do they mention that these effects are likely to be temporary or that similar results might be achieved by meditating, walking, exercising, having sex, or reading a good book, not necessarily in that order.

The AMTA also claims that therapeutic massage "can help" with

- allergies
- anxiety
- arthritis (both osteoarthritis and rheumatoid arthritis)
- asthma and bronchitis
- carpal tunnel syndrome
- chronic and temporary pain
- circulatory problems
- depression
- digestive disorders, including spastic colon, constipation and diarrhea
- headache, especially when due to muscle tension
- insomnia
- myofascial pain (a condition of the tissue connecting the muscles)]
- reduced range of motion
- sinusitis
- sports injuries, including pulled or strained muscles and sprained ligaments
- stress
- temporomandibular joint dysfunction (TMJ)

Something that "can help" with so many disorders and dysfunctions should be very popular. According to the AMTA, Americans spend from \$2 billion to \$4 billion per year on massage therapy. However, "can help" is an empty claim, and those with serious medical problems such as cardiac problems, depression, or sinusitis would do well to consult a physician.

Since massage therapy is essentially an unregulated profession, making claims that massage therapists are qualified to treat medical conditions such as allergies, infectious diseases, phlebitis, etc., seems like [quackery](#). This has not stopped the profession from expanding to the point where even [dogs](#) and [horses](#) can get a healing massage the [Linda Tellington-Jones](#) holistic way.

See **related entry** on [alternative health practices](#).

further reading

[reader comments](#)

- [Touch Research Institute](#)
- ["There's the Rub Can a massage cure your ills?"](#) by Eliza Truitt, *Slate*, June 26, 2001
- [Scientific Studies on the Effects of Massage Therapy](#)

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America* \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

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["Mars Effect"](#)

[materialism](#)



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(New Age) psychotherapies

"It is possible that the most important decision in the history of therapy was the idea that it should be paid for by the hour." – Jay Haley

"To society's loss, there is an alarming laxity within the mental health professions when it comes to monitoring, commenting on, and educating the public about what is good therapy, what is negligent behavior by trained professionals, and what is or borders on quackery." –Singer and Lalich, "Crazy" Therapies

A **psychotherapy** is a treatment technique for mental or emotional disorders. There are many types of psychotherapy. Some have been empirically tested and are known to be very effective, such as [cognitive therapy](#). Many New Age therapies, however, are little more than a mixture of metaphysics, religion and pseudoscientific "insights". There may be reasonable disagreements over what constitutes successful therapy, but successful therapy should not require one to believe in God, reincarnation, alien abductions, possession by entities, inner children, Primal Pains, channeling, miracles, or any other metaphysical, religious or pseudoscientific notion.

For in-depth descriptions of some of the latest New Age therapies one should read *"Crazy" Therapies* by Margaret Thaler Singer and Janja Lalich, or view Ofra Bikel's "Divided Memories," first aired on *Frontline* on April 4, 1994, and available on video tape for \$133.50 (\$155 abroad) from:

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Bikel's documentary of therapists allows the practitioners to confidently display their arrogance and incompetence. The therapists are oblivious to the fact that they are being used to demonstrate the monstrosity of their pseudoscientific and self-deceptive work. Therapist after therapist talks freely about how uninterested they are in the truth and how indifferent they are to

the families they help destroy. They are uniform in their dismissal of critics as being "in denial". Patient after patient is paraded forth by the therapists as evidence of their good work, yet none of the patients seem better for the therapy and many seem hopelessly ill.

Trying to find a meaningful common thread in the therapies is not too difficult, but its meaningfulness does not enhance the position of those who think these therapies are scientific. One common thread is the belief that a person having problems is not likely to be responsible for those problems. Another thread is the belief that the cause of a problem is some traumatic past event, such as being stabbed in the stomach in a previous lifetime or being sexually abused as a child, the latter being the [repressed memory therapists'](#) one-size-fits-all explanation of every emotional disorder. Childhood sexual abuse is not only the cause of most problems, according to these therapists, it is the cause around which their lives revolve. The repressed memory therapists are not bothered that most of their patients do not remember being abused. [Repressed memory therapy](#) will help them recall the trauma. Several therapists in "Divided Memories" claim to have been abused themselves; one discovers her abuse while treating a patient who is remembering her abuse. That a therapist would inject his or her own problems into treatment and consider the beliefs about a past life of a patient to be relevant to the patient's illness makes these New Age therapies look more like [cults](#) than science.

Another common thread is the belief that the patient must discover the cause of his or her problem to be helped. This "insight" approach to psychotherapy is very old, but has never been scientifically tested or validated. Nor does there seem to be any clear idea as to what it means to be helped by psychotherapy. The only common thread regarding cure seems to be that the patient believes she knows what caused her problems. Believing you know who or what harmed you in the past is the cure. The quality of the patient's life, the interaction of the patient in significant social settings--such as with one's family, friends, and co-workers--is irrelevant. Having the patient trust the therapist is all-important. To gain this trust one of the common tactics of the therapists is to turn the patient against the patient's family. This is done by leading the patient to believe that the cause of the patient's problems is a family member or several family members. The family cannot help the patient because the family is the cause of the patient's problems. One or more family members abused the patient and is now either a liar or in denial; the other family members are deluded or in conspiracy to protect the evil family member. Of course, this demand that the therapist be trusted by the patient has its corollary: the patient puts all her faith in the therapist in return. The patient has been persecuted; the therapist is her savior.

lack of interest in truth or accuracy

The most appalling thread holding these therapies together is the profound lack of interest in truth or accuracy. Neither patient nor therapist is to be

concerned with facts or tangible evidence that the "believed cause" actually happened. In fact, whether the "believed cause" is the real cause is irrelevant to the therapy. The patient creates truth and it is as real to the patient as facts are to the skeptic. That's all that matters. We all live in a delusion, proclaims one therapist. So, it is of no concern to him that his patient's "believed cause" is pure delusion. Any first-year psychology student recognizes the projection in that claim. The viewer, however, needs no training to see that this therapist is clearly deluded when he claims that he did not induce his patient's bizarre tale of ritual abuse by her satanic cult parents and grandparents. His total lack of interest in corroborating evidence to his patient's story, his lack of concern for the family he was helping to destroy, his disingenuous claims about needing to accept on faith everything his patient tells him, his apparent obliviousness to the absurdity and cruelty of inducing his patient to file a \$20 million lawsuit against her family, his deluded claim that he can tell in the first session with a patient whether she has been abused as a child, all add up to the self-labeled therapeutic package: delusion.

The overwhelming impression left by Bikel's documentary is that there are a number of New Age therapists who are mixing metaphysics, religion and quackery. They have no interest in facts or truth, and, because they are pseudoscientific, have no way of testing whether they are valid or not.

Singer and Lalich's *"Crazy" Therapies* documents the wide range of pseudoscientific therapies popular among New Age therapists. The authors attribute part of the popularity of bizarre therapies to the rise in irrationality and the demand for such items on talk shows and the book circuit. Some therapists, like Sondra Ray, an advocate of ["rebirthing therapy,"](#) consider themselves to be spiritual guides, not scientists. They are proud of their lack of scientific support. Some claim that mental illness is caused by possession by spirit entities which must be placated. Others use [past-life regression](#) to find the cause of the problem. Some treat [alien abduction](#) claims as non-delusional. There are several cathartic therapies that involve primal screaming, rebirthing, or reparenting. None of these therapies has any scientific validity. Others, such as [facilitated communication](#) and [Eye Movement Desensitization and Reprocessing](#) (EMDR) appear scientific but at the expense of good sense and good science. None of these therapies have been proven effective by independent scientific studies, nor are they generally accepted as effective in the scientific community. Their support comes mainly from the "insight" and observations of their founders, and patient response, which is analyzed and evaluated by the therapists themselves. Most of the innovative therapists reviewed by Singer and Lalich seem uninterested in scientifically testing their theories, though most seem attached to technical jargon.

It is difficult to select the most egregious New Age therapy, but Neural Organization Technique (NOT) developed by chiropractor Carl Ferreri, is hard to top. Ferreri decided, without the slightest hint of scientific evidence,

that all mental and physical problems are due to misaligned skulls. Ferreri believes that as you breathe, the bones in your skull move, causing misalignments that can be corrected by manipulation. This theory was put into practice without the slightest proof that cranial bones move or that there is any sense to the notion of "standard alignment" of the cranial bones. Ferreri was not stopped by logic, however, but by lawsuits and criminal charges.

long list of "crazy" therapies

The list of "crazy" therapies is too long to reproduce here, but Singer and Lalich describe the following:

Leonard Orr developed energy breathing and rebirthing theory. According to Orr, if you learn how to breathe energy well, you can breathe away diseases and physical or emotional pain.

Marguerite Secheyahay and John Rosen practice the theory of regression and reparenting. The therapist becomes the patient's surrogate parent to make up for the terrible job her real parents did.

Jacqui Shiff's theory is that the patient must wear diapers, suck his thumb and drink from a baby bottle to be cured.

Sondra Ray and Bob Mandel believe that your problems are due to the way you were born. They will help "rebirth" you, properly this time.

John Fuller, Bruce Goldberg, Brian Weiss, Edith Fiore, Richard Boylan, David Jacobs, Budd Hopkins and John Mack use hypnosis to discover the patient's past or future lives as an alien abductee, in an effort to "help" them.

John Bradshaw's theory is that you have an "inner child" you must nurture and be good to, if you are to be healthy.

Arthur Janov practices Primal Therapy. According to Janov, the patient must rid herself of Primal Pain which can be eradicated only by learning the Proper Way to Scream and Capitalize.

Daniel Casriel's New Identity Process (NIP) involves screaming which allegedly unblocks what's blocked. Casriel's scream is apparently a better kind of scream than Janov's.

Nolan Saltzman practices Bio Scream Psychotherapy. His screaming is apparently better than both Casriel's and Janov's because it has more Love in it.

Finally, there is hypnotherapy. Hypnotherapy is extremely popular and is practiced by thousands of therapists who got their training in a weekend

seminar. Singer and Lalich note that

There are no licensing requirements, no prerequisites for training, and no professional organization to which those who hypnotize others are accountable. You can be a real estate agent, a graphic artist, an English teacher, or a hairdresser and also call yourself a hypnotherapist by hanging a certificate on your wall that states you took as few as eighteen hours of courses in hypnosis. (p. 53)

This lack of oversight leads to all sorts of abuses and malpractice.

priming

Many hypnotherapists seem unaware that they are priming their patients. The dangers of this practice are stated by [Martin Orne](#): "The cues as to what is expected may be unwittingly communicated before or during the hypnotic procedure, either by the hypnotist or by someone else, for example, a previous subject, a story, a movie, a stage show, etc. Further, the nature of these cues may be quite obscure to the hypnotist, to the subject, and even to the trained observer." (p. 96) Yet, many hypnotherapists seem oblivious to the dangers and pitfalls of using hypnosis in a therapeutic session.

Many New Age therapists seem oblivious to facts with which any competent therapist should be concerned. For example, all these therapists develop theories which exclude the possibility that a patient might either have a physical problem or a character flaw. No patient is physically ill. No mental disorder is biochemical. No patient is responsible for his or her problems. It is always someone else or something else which has the faults. Patients apparently never lie, manipulate, deceive, cheat, distort, rationalize, err, etc. If a patient has a "fault," it is that he or she is not completely trusting of the therapist. Patients have "mental diseases", "emotional problems", or "syndromes", not character flaws. It would be an astounding fact to discover that emotionally disturbed or mentally troubled persons are completely without flaws in their moral character. Yet, these advocates of "crazy" therapies seem to treat all patients as if they were innocent children, incapable of the slightest peccadillo.

Most of the therapists discussed by Bikel, Singer and Lalich seem oblivious or indifferent to their role in priming and prompting their patients. They condition their patients, prompt them, and in some cases, clearly plant notions in their patient's minds. They give their patients books to read or videos to watch, not to help the patient understand a problem but to prime the patient for belief in some crazy therapy. They plant notions during hypnosis, group sessions, etc., and then these planted notions are "recovered" and offered as validation of their therapeutic techniques and theories. Rather than provide

real therapy, these "crazy" therapists indoctrinate patients into their own worldviews. Perhaps most disturbing of all is that this surreal pseudoscience goes nearly unchallenged by professional mental health associations and the mass media.

See related entries on [astrotherapy](#), [codependency](#), [communal reinforcement](#), [false memory](#), [hypnosis](#), [Carl Jung](#), [past life regression therapy](#), [psychoanalysis](#), [psychology](#), [repressed memory](#), [repressed memory therapy](#), [substance abuse treatment](#), and [the unconscious mind](#). See also my review of ["How to Control the Pain,"](#) by Earl Ubell.

further reading

- [Review of "Crazy" Therapies by Singer and Lalich](#)
- [Innocence Lost](#) - Frontline
- [Twelve Myths about False Memories](#)
- [Beck Institute for Cognitive Therapy](#)
- [Dr. Ivan's Depression Central](#)
- [The American Psychological Association](#)

[Dawes, Robyn M. *House of Cards - Psychology and Psychotherapy Built on Myth*, \(New York: The Free Press, 1994\).](#)

[Gold, Mark. *The Good News About Depression: Cures and Treatments in the New Age of Psychiatry* \(Bantam, 1995\).](#)

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[Kandel, Eric R. & James H. Schwartz, eds. *Principles of Neural Science* 4th ed. \(McGraw-Hill Professional Publishing, 2000\).](#)

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psychic "surgery"

Psychic "surgery" is a type of non-surgery performed by a non-medical healer. The healer fakes an incision by running a finger along the patient's body, apparently going through the skin without using any surgical instruments. The healer pretends to dig his hands into the patient's innards and pretends to pull out 'tumors'. Using trickery, the healer squirts animal blood from a hand held balloon while discarding items such as chicken livers and hearts. The patient then goes home to die, if he or she was really dying, or to live if there was nothing seriously wrong in the first place.

Psychic "surgery" is big business around the world, but especially in the Philippines and Brazil, where "healers" like [Alex Orbito](#) and [Laurence Cacteng](#) ply their trade. Tony Agpaoa put psychic "surgery" on the map in Manila, where there are now several hundred practicing psychic "surgeons", many working out of hotels. In 1967, Agpaoa was indicted for fraud in the United States. He jumped bail and went home, forfeiting a \$25,000 bond.*

Some people find solace in psychic "surgeons" and other faith healers because they think the healers are divine agents. The practice is not restricted to third-world countries. [Chris Cole](#) practices psychic "surgery" in Sydney, Australia. One of the more popular psychic "surgeons" outside of the Philippines is [Stephen Turoff](#), who runs the Danbury Healing Clinic in Chelmsford, England. Turoff, a follower of [Sai Baba](#), performs [therapeutic touch](#) at no extra charge. Turoff also takes his show on the road. A Dutch group called [Inner Journey](#) reports on a weekend with Turoff where at least four people out of about 250 wrote two weeks after their visit to say they were healed.

Turoff has been performing for a quarter of a century and is popular enough to warrant a biographer, Grant Solomon. In 1998, Solomon published *Stephen Turoff - Psychic Surgeon: The Story of an Extraordinary Healer*. A revised edition appeared in 1999 with the extraordinary and remarkable revised title of *Stephen Turoff, Psychic Surgeon: The Extraordinary Story of a Remarkable Healer*. According to [Natural Healing](#), Turoff is "a 16-stone, six-and-a-half foot, middle-aged, Jewish-Christian former carpenter from Brick Lane in London's East End whom many believe to be an instrument of God." To [others](#), Turoff is just another [pious fraud](#). Nevertheless, the popularity of psychic "surgery" seems to be growing, despite the debunking work of people like James Randi.

[Psychic dentistry](#) is also available for those who prefer dentistry without anesthesia or dental drills performed by a faith healer. "Willard Fuller has supposedly healed more than 40,000 people since he began practicing in

1960. Those who flock to his healing ministry claim his magic touch can fill cavities, make bad teeth whole again, and even produce a new set of teeth in some elderly patients" (Nava). Many patients are afraid to admit they've been defrauded because that would imply that they lack true faith. According to George Nava True II who operates the "only Philippine skeptical website to challenge the claims of alternative healers, psychics, and other quacks," psychic dentistry "has never been demonstrated under controlled laboratory conditions and most practitioners are simply sleight-of-hand artists who can't produce a shred of proof of their alleged powers." For those who have faith, proof is not needed.

further reading

reader comments

- [The Facts About Faith Healing](#) by George Nava True II
- [Psychic Surgery](#) - The British Columbia Cancer Agency

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America* \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

[Barrett, Stephen and Kurt Butler \(eds.\) *A Consumers Guide to Alternative Medicine : A Close Look at Homeopathy, Acupuncture, Faith-Healing, and Other Unconventional Treatments*; edited by \(Buffalo, N.Y. : Prometheus Books, 1992\).](#)

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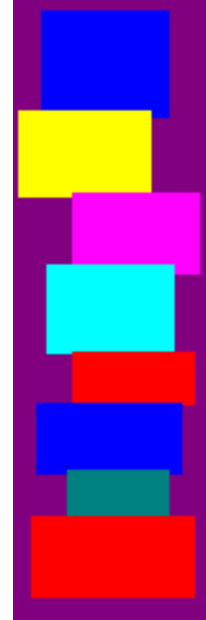


Rolfing

"Rolfing's foundation is simple: Most humans are significantly out of alignment with gravity, although we function better when we are lined up with the gravitation field." [[The "Online Boulder Guide"](#)]

Rolfing is a kind of [deep massage](#) and "movement education" developed by [Ida P. Rolf](#) (1896-1979), a biochemist and therapist. She authored several books on the relationship of form and structure in the human body, including *Rolfing: The Integration of Human Structures* (New York: Harper and Row, 1977). Her dissertation was on the chemistry of unsaturated phosphatides and was published by The Waverly Press in 1922.

Dr. Rolf claimed she found a correlation between muscular tension and pent up emotions. *Rolfing* is the name given to Dr. Rolf's method of massage, which transcends chiropractic in that it is based on the notion that *emotional* as well as physical health depends upon being properly aligned. In Rolfing, alignment must be of much more than just the spine. To be healthy, according to Rolfers, you must align your head, ankles, hips, thorax, pelvis, knees, shoulders, ears, etc., in just the right way or else the evils of gravity will be felt. By being properly aligned, gravity enhances personal energy leading to a healthy body and emotional state.



There is a Rolfer in my hometown who advertises that Rolfing brings "a sense of integration and well being." The ad even quotes an M.D. who says: "Rolfing works. Not only can it dramatically change people's bodies. It can transform their lives as well." Rolfing, according to the advertisement, has "evolved into a **gentle** deep muscle balancing process that structurally aligns your body." (The word "gentle" is boldfaced in the ad.) He also claims that after ten sessions there are long-term results, which include "Physical and Emotional Flexibility" and "A Sense of Integration and Well Being."

Has this claim of the muscular/emotional connection been demonstrated by any scientific studies? No, but the proof is that it works! There are tons of anecdotes and [testimonials](#) verifying Rolfing.

[Some Rolfers](#) claim that Rolfing is a 'scientifically validated system of body restructuring and movement education.' They claim that there is scientific proof that each of us has life-long patterns of tension and that realigning releases this tension, so that "overall personal functioning tends to improve."

The expression 'tends to improve' may sound like weaseling to you, but apparently it is crystal clear and scientific enough for Rolfers.

It takes one to two years to complete the Rolfing training at a cost of between \$10,000 and \$12,000. The Rolfing training can only be taken from the official Rolf Institute in Boulder Colorado. Although there is another outfit in Boulder called [The Guild for Structural Integration](#) which is dedicated to Ida Rolf and seems to be Rolfing in everything but the name. Another school of structural integration is [Hellerwork](#), which will not only align and integrate your body parts, it will do the same for your mind and soul.

further reading

[reader comments](#)

- [Why Bogus Therapies Often Seem to Work](#) by Barry L. Beyerstein

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America*, \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

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shark cartilage

Powdered shark cartilage has been touted as a cancer cure, especially by William Lane, Ph.D., whose company produces the stuff under the name of BeneFin. Lane has written two books, both with the false claim that *sharks don't get cancer* in their title. Sharks do get cancer, even cancer of their cartilage. On June 29, 2000, Lane was prohibited by the Federal Trade Commission from claiming "BeneFin or any other shark cartilage product prevents, treats or cures cancer," until he has substantial evidence to support his claims.

Dr. Lane is an example of why alternative medicine is usually either useless or harmful. He took a little bit of knowledge, generalized from it, started a company to produce the miracle cure, wrote books and misleading promotional pieces supporting his company's research and product, got a major news show to do a shoddy, uncritical story which suggested that maybe there was something to the miracle cure, and responded to criticism with the claim that his critics were conspiring to stifle him because his research was somehow a threat to traditional medical practitioners.

There are no scientific studies done by independent researchers with proper controls which have substantiated the claim that shark cartilage is a useful treatment for cancer. In at least one such study, the treatment was found ineffective. Other studies are underway and their results should be available soon.

Lane got his inspiration from the work of real scientists who injected bovine and shark cartilage into the bloodstreams of rabbits and mice with cancer. The stuff greatly inhibited angiogenesis, the growth of blood vessels which supply nutrients to the cancerous cells. However, not all cancers rely on angiogenesis. Most researchers doubt that cartilage taken orally will result in significant quantities making it to the site of a tumor. They believe that it is a protein in cartilage that affects angiogenesis and that the protein would be digested rather than absorbed into the bloodstream where it might find its way to a tumor. However, injecting shark cartilage directly into the human bloodstream might result in an unfavorable immune system response.

The best that can be said for taking shark cartilage pills or powder is that *it is an unproven cancer cure*.

See related entry on [alternative health practices](#).

further reading

- [Quackwatch on Quack Cancer Cures](#)
- [Should There Be a Shark in Your Medicine Cabinet? by Dr. Ruth Kava](#)
- [Shark Cartilage](#) - British Columbia Cancer Agency

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[shoehorning](#)



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[A gift from the gods:
bottled cow's urine](#)

By Julian West in
New Delhi (Sept. 4,
2001)

urine therapy

Drink water from your own cistern, flowing water from your own well. (The Book of Proverbs 5:15)

More than three million Chinese drink their own urine in the belief it is good for their health, according to the official Xinhua news agency.

Urine therapy refers to one of several uses of urine to prevent or cure sickness, to enhance beauty or to cleanse one's bowels. Most devotees drink the midstream of their morning urine. Some prefer it straight and steaming hot; others mix it with juice or serve it over fruit. Some prefer a couple of urine drops mixed with a tablespoon of water applied sublingually several times a day. Some wash themselves in their own golden fluid to improve their skin quality. Many modern Japanese women are said to engage in urine bathing. The truly daring use their own urine as an enema. Urine is not quite the breakfast of champions, but it is the elixir of choice of a number of holy men in India where drinking urine has been practiced for thousands of years. The drink is also the preferred pick-me-up for a growing number of naturopaths and other advocates of "nature cures." The main attractions of this ultimate home brew are its cost, availability and portability. It is much cheaper than that other "water of life," [whisky \(uisge beatha\)](#), which also has been hailed for its medicinal qualities. Unlike whisky, however, urine is always available, everyone carries a supply at all times, and, for most people, there are no intoxicating side effects. Furthermore, the urge to overindulge is almost absent when drinking urine. The same can't be said for good single malt such as Highland Park or a good whiskey such as Black Bush.

Many advocates claim that urine is a panacea. There is practically nothing it won't cure. Urine is said to be effective against the flu, the common cold, broken bones, toothache, dry skin, psoriasis and all other skin problems. It is said to deter aging and is helpful with AIDS, allergies, animal and snake bites, asthma, heart disease, hypertension, burns, cancer, chemical intoxication, chicken pox, enteritis, constipation, and pneumonia. Urine is said to be effective against dysentery, edema, eczema, eye irritation, fatigue, fever, gonorrhea, gout, bloody urine, small pox, immunological disorders, infections, infertility, baldness, insomnia, jaundice, hepatitis, Kaposi's sarcoma, leprosy, lymphatic disorder, urticaria, morning sickness, hangover, obesity, papilloma virus, parasitoses, gastric ulcer, rheumatism, birth marks, stroke, congestion, lumbago, typhus, gastritis, depression, cold sore, tuberculosis, tetanus, Parkinson's disease, foot fungus, diabetes and other endocrine related diseases. Some enthusiasts see urine therapy as a divine manifestation of cosmic intelligence. They use urine to unleash their kundalini, sending it straight into the third eye, bringing instant

enlightenment.*

With such wondrous properties, it is amazing that science bothered developing medicine when it had the key to good health already in the bottle, so to speak. Each of us is a walking pharmacopoeia. Homer Smith (*Man and His Gods*) once wrote that "man is a machine for turning wine into urine." Little did he know that man is a machine for turning just about anything into a medicinal tonic. According to urinophiles, the medical establishment has conspired to keep us ignorant of the wonder drug we all carry in our bladders. One self-proclaimed expert on the subject claims

...the medical community has already been aware of [urine's] astounding efficacy for decades, and yet none of us has ever been told about it. Why? Maybe they think it's too controversial. Or maybe, more accurately, there wasn't any monetary reward for telling people what scientists know about one of the most extraordinary natural healing elements in the world.*

This is a common argument from defenders of alternative therapies: the greed of medical doctors leads them to conspire against chiropractors, chelation therapists, etc. The evidence for this conspiracy wouldn't fill a specimen beaker. Part of the alleged conspiracy to keep us ignorant of the wonders of our own wee wee is the fact that many people think urine is poisonous. Urine is generally not toxic and you will not die of uremic poisoning if you start your day off with a cup of your own golden fluid. However, it hardly seems fair to blame the medical establishment for the general public's ignorance on this matter. In any case, just because something is not toxic does not mean it is good for you. Hair is not toxic, either, and even though it might be a good source of roughage, it is generally not desirable to put hair in food.

Furthermore, while it is true that some of the constituents of urine are being used and tested for their potential or actual therapeutic value, it does not follow that drinking one's urine is therapeutic. It may be discovered that one of the chemicals in human urine is effective for fighting cancer. However, drinking one's own urine is not likely going to supply enough of any cancer fighting substance to do any good. It is also true that some of the substances in urine are good for you. For example, if you are ingesting more vitamin C (a water soluble vitamin) than your body needs or can process, you will excrete it in your urine. It doesn't follow that drinking your urine is a good way to get vitamin C into your body. An orange or a tablet might be preferable. However, if you are urinating excess vitamin C, what do you think your body will do with the vitamin C you ingest with your urine? If you guessed that it would get rid of it, you guessed right. The reason your urine contains vitamins and minerals is because your body didn't need them or couldn't use them. You might as well pour water into a full glass as reuptake your excess vitamins and minerals. Even urea, which can be toxic in very high doses, occurs in such minute quantities in the average person's urine that there is very little

chance of poisoning from drinking one's own urine.

Unfortunately, however, not everybody can just jump right in and start drinking their own urine without negative side effects. [The Chinese Association of Urine Therapy](#) warns that

Common symptoms include diarrhea, itch, pain, fatigue, soreness of the shoulder, fever, etc. These symptoms appear more frequently in patients suffering long term or more serious illnesses, and symptoms may repeat several times. Each episode may last 3-7 days, but sometimes it may last one month, or even worse over 6 months. It is a pity that many give up urine therapy because of such bad episode [sic]. Recovery reaction is just like the darkness before sunrise. If one persists and overcomes the difficulty, one can enjoy the eventual happiness of healthy life.

These same people advise that *"All kinds of throat inflammation can be helped by gargling with urine to which a bit of saffron has been added"* and *"drinking one ounce of urine . . . is more beneficial to the average person than a fully staffed multi-billion dollar medical center."* I was unable to find their evidence for these claims. Perhaps the evidence was produced at the First World Conference on Urine Therapy which took place in India in February 1996. Or maybe it came up in 1998 during the Second World Conference on Urine Therapy held in Germany.

religion and urine

The origin of this unusual practice seems to be certain religious rites among Hindus, where it is called *amaroli* in [tantric](#) religious traditions. The tantric tradition is known for flouting conventional behavior as a means of establishing the moral superiority of its practitioners. It is also possible that this practice is related to superstitions based on [sympathetic magic](#). Since urine is emitted from the same bodily organ used in sex, perhaps it was thought that by drinking one's urine one was swallowing some sort of sexual energizer. In any case, it is unlikely that Indians some 4,000 years ago had scientific reasons for drinking their own urine.

Another rather unscientific notion which seems to be accepted by urinophiles is that urine is really blood, since it is the byproduct of blood filtering by the kidneys. It is unlikely that if you need a blood transfusion that urine will work just as well.

Another misleading claim being made by urinophiles is that amniotic fluid is nothing but urine: fetal urine. If it is good for the fetus, it should be good for all of us. Here is what urine expert [Martha Christy](#) has to say on the subject:

... the amniotic fluid that surrounds human infants in the womb is primarily urine. Actually, the infant "breathes in" urine-filled amniotic fluid continually, and without this fluid, the lungs don't develop. Doctors also believe that the softness of baby skin and the ability of in-utero infants to heal quickly without scarring after pre-birth surgery is due to the therapeutic properties of the urine-filled amniotic fluid.

Some of the chemicals found in amniotic fluid are not going to be found in most urine samples. It is misleading, to say the least, to claim that amniotic fluid is "[primarily](#)" urine. It would be more accurate to say that they are both primarily water. I don't know what doctors she is talking about, but most parents will tell you that when their babies came out of the womb their skin was anything but beautiful. Comparisons to wrinkly prunes are quite common. So is comparison to one's skin after being in the swimming pool for a long time. The baby's skin becomes soft only after it has been out of its liquid environment for some time. There is a reason for that, according to Kim Kelly, a naturopathic doctor and nurse from Seattle. Newborns don't produce oil from their sebaceous glands until several weeks after their birth, which is why they often appear to have dry, flaky skin. Rather than amniotic fluid contributing to soft skin, according to Kelly, babies in the womb are protected by vernix, a creamy substance that serves as a barrier between the baby and the amniotic fluid. So, unless your urine is full of vernix, using it as a skin lotion is unlikely to work as a moisturizer.

the nature of urine

What is urine? Urine is usually yellow or clear, depending upon a person's health and diet. It usually has an ammonia-like odor due to the nitrogenous wastes that make up about 5% of the fluid (the remaining 95% is water). Certain foods can affect the odor, however. For example, asparagus breaks down into several sulfur-containing compounds and imparts a putrid odor upon excretion.*

Urine is a slightly acidic fluid which carries waste from the kidneys to the outside world. The kidneys have millions of nephrons which filter toxins, waste, ingested water and mineral salts out of the bloodstream. The kidneys regulate blood acidity by excreting excessive alkaline salts when necessary. The chief constituent of the nitrogenous wastes in urine is *urea*, a product of protein decomposition. Urea is, among other things, a diuretic. Average adult urine production is from one to two quarts a day. The bladder, where urine is stored for discharge, holds on average about 16-20 ounces of fluid, though the average discharge is about half that amount. In addition to uric acid, ammonia and creatine, urine consists of many other waste products in minute quantities.

Being a waste product does not mean that a substance is toxic or harmful. It means that the body cannot absorb the substance at the present time. We

might think of many of urine's constituents as if they were leftovers from a meal. We could throw the excess food away or we could eat it later after diluting it substantially with water and putting it in the blender. With urine, unfortunately, we cannot ingest waste products in the form they had when first ingested.

For most people most of the time, one's own urine is not likely to be harmful. However, it is not likely to be healthful or useful except for those rare occasions when one is buried beneath a building or lost at sea for a week or two. In such situations drinking one's own urine might be the difference between life and death. As a daily tonic, there are much tastier ways to introduce healthful products into one's blood stream.

See **related entry** on [alternative health practices](#).

further reading

[reader comments](#)

- ["Why Bogus Therapies Often Seem to Work"](#) by Barry L. Beyerstein, Ph.D.
- [Quackwatch](#)
- ["Taking the Piss - Is Urine Drinking a Good Idea?"](#) Paul Willis interview Dr. Robert Farnsworth, a leading Australian urologist
- ["Just a glass a day keeps the doctor away"](#) by Jeff Langley
- [The Restaurant of Urine-Altering Cuisine](#)
- [Auto Urine Therapy](#)
- [The Urine Therapy Home Page](#)

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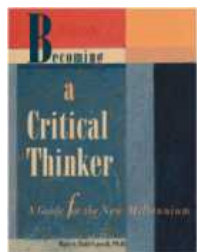


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Suburban myths are common misconceptions that are uncritically passed on as established truths by "experts" and non-experts alike. Suburban myths should not be confused with [urban legends](#).



[Becoming a Critical Thinker by Robert Todd Carroll](#)

Suburban Myths

[Myth 1.](#) We use only 10% of our brain.*

[Myth 2.](#) Prescription drugs are one of the leading causes of death.

[Myth 3.](#) Most medical treatments have never been clinically tested.*

[Myth 4.](#) Evolution is just a theory. Creationism is a theory, too. To be fair to our children, we should teach them both.

[Myth 5.](#) Jeane Dixon predicted President John F. Kennedy's assassination.

[Myth 6.](#) The brain is more insightful and productive in the alpha state.

[Myth 7.](#) There are Men in Black who are government agents whose function is to visit UFO witnesses and warn them not to tell anyone about their UFO experiences.

[Myth 8.](#) Kenneth Arnold saw a flying saucer in 1947.

[Myth 9.](#) Altered states of consciousness transport a person to a higher state of awareness and productivity.

[Myth 10.](#) There is a curse on the Kennedy family.

[Myth 11.](#) Demons can take possession of your soul.

[Myth 12.](#) There is a Jewish conspiracy to take over the world.

[Myth 13.](#) Walking on hot coals without burning one's feet requires

paranormal or supernatural powers.

Myth 14. The near-death experience is typically pleasant and blissful, involving a feeling of moving through a tunnel into a bright light.

Myth 15. We usually unconsciously repress traumatic experiences.

Myth 16. Edgar Cayce was illiterate.

Myth 17. Hypnosis is a gateway to the unconscious mind.

Myth 18. At the equinox, an egg will balance on its end.

Myth 19. Medical doctors typically know nothing about nutrition.

Myth 20. Physicists do not know how it is possible for the common housefly to fly.

Myth 21. Faith healing works.*

Myth 22. Dr. Randolph Byrd scientifically proved that prayer can heal.

Myth 23. Even if Dr. Byrd failed, others have succeeded in proving scientifically that prayer heals.

Myth 24. You can raise your I.Q., SAT score, and dissolve brain tumors by listening to Mozart.

Myth 25. Transplant organs carry personality traits which are transferred from donors to receivers.

Myth 26. More ships and aircraft have vanished without a trace in the waters between Miami, Bermuda, and Puerto Rico than anywhere else of

equal area.

Myth 27. The way a person makes marks on paper captures one's personality and hidden intentions.

Myth 28. The polygraph is a reliable device for telling when a person is lying or telling the truth.

Myth 29. Einstein believed in a personal Creator.*

Myth 30. Domestic violence significantly increases on Super Bowl Sunday.*

Myth 31. Crimes, mental illness, suicides, and emergency room visits increase when there is a full moon.

Myth 32. The second law of thermodynamics proves that evolution is wrong.

Myth 33. Darwin's theory of evolution, the theory of natural selection, implies inequality of sexes, races, and nations.

Myth 34. Creationism implies that evolution and the Big Bang theory are false.

Myth 35. In the year 2000, because of unusual planetary alignments on May 5th, the polar ice caps will melt and there will be great earthquakes caused by tidal forces.*

Myth 36. Lemmings commit mass suicide.

Myth 37. Militant fundamentalist (anti-evolution) Christians make up the majority of Christians.

Myth 38. Possessing a US Patent on a device means that one has a working device.

Myth 39. The Eisenhower Interstate Highway System requires that one mile in every five must be straight so they can be used as airstrips in times of war or other emergencies.

Myth 40. Subliminal messaging has been empirically proven to work.

Myth 41. False memories of abuse are always implanted by poorly trained therapists through hypnosis and recovered memories are more reliable if they occur outside of therapy.

Myth 42. Einstein believed in astrology.

Myth 43. Suicide increases over the holidays.

Myth 44. NASA faked the moon landings.

Myth 45. Scientists have proved that the brain is really two brains and each has its own domain: the left hemisphere is the seat of our logical, analytical, scientific self and our right hemisphere is the seat of our intuitive, creative, artistic, emotional self.*

Myth 46. Switching to a low-tar cigarette will reduce one's chances of being exposed to the carcinogens in cigarette smoke.

Myth 47. Vaccination* of children with the (MMR) vaccine* to prevent measles,* mumps and rubella causes autism.*

Myth 48. Christopher Columbus thought the earth was flat.

Myth 49. American girls are reaching puberty earlier because of hormones in cattle feed that gets into their fast food burgers and burritos.

Myth 50. Bernoulli's principle explains why all forms of flight are possible.

Myth 51. Thomas Crapper invented the flush toilet and his name is the origin of the vulgar expression for defecation.

Myth 52. Atheists are appealing to the Federal Communications Commission to ban religious broadcasting.*

Myth 53. Sugar causes hyperactivity in children.*

Myth 54. Alcohol, especially [red wine](#), is good for your health.

Myth 55. A migraine is a bad headache.

Myth 56. Kirlian photography has shown "phantom limbs", e.g., when a leaf is placed on the plate and then torn in half and "photographed", the whole leaf shows up in the picture, proving that things have auras.

Myth 57. Water runs down the drain clockwise in the northern hemisphere and counterclockwise in the southern hemisphere due to the Coriolus effect.

Myth 58. The moon can trigger [ovulation](#) and bring on fertility depending on what phase the moon was at when you were born.*

Myth 59. The mercury in dental amalgam is poisoning people.*

Myth 60. You should drink [eight glasses of water a day](#) for good health.* One study, however, does seem to have [good evidence](#) that drinking five glasses a day is better than drinking two or fewer with respect to fatal coronary heart disease.

Myth 61. The Declaration of Independence was signed by all signatories on July 4, 1776, as depicted in the painting by [John Turnbull](#).*

Myth 62. Charles Darwin renounced evolution and his theory of natural selection on his deathbed.

Myth 63. Snuff films are real: actresses are really killed in these films.

Myth 64. People who were present at the opening of King Tutankhamen's tomb were exposed to the "mummy's curse" and died soon afterward.

Myth 65. Women have more ribs than men do.





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features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events.

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Mass Media Bunk

9

August 18, 1999. Dr. Bob Arnot of NBC reports on MSNBC.com that Dr. Harold Koenig of Duke University did a study of 4,000 elderly people [a week ago it was 2,000 people; see entry for Aug. 10) and found that those who went to church at least once a week were 28 percent less likely to die over a six-year period than those who did not. It apparently did not occur to either Dr. Koenig or to Dr. Arnot that people who go to church may be healthier than those who do not. Many who do not attend church do not attend because they are not well enough to attend. Thus, Drs. Koenig and Arnot are not justified in attributing all the differences in health between churchgoers and non-churchgoers to going to church and the healthy choices that churchgoers will make because of their religious beliefs.

August 10, 1999. MSNBC.com reports that "New research offers more evidence that religion is good for the body as well as the soul. The study found that churchgoers have lower blood pressure than those who don't attend services."

The International Journal of Psychiatry in Medicine published the work of Dr. Harold G. Koenig of Duke University Medical Center in Durham, N.C. Koenig based his conclusions on a randomly selected survey of more than 2,000 people ages 65 and older in a primarily Protestant area of North Carolina. Even though Koenig himself notes that those who watched religious television or listened to religious radio actually had higher blood pressure than those who did not, it apparently did not occur to him or the editors of the *Journal*, or the writers at MSNBC, that being healthy might be the important factor here, not going to church. Those who are over 65 and go to church are much more likely to be in better health than those who are over 65 and get their religion from the television or the radio.

July 28, 1999. Fox (Alien) Network's "[Signs From God: Science Tests Faith](#)" should have been called "Dollar Signs: Fox Tests Gullibility."

[Giselle Fernandez](#) and [Michael Willesee](#) took viewers on an uncritical tour through exotic places like Cochabamba, Bolivia, and Monterrey, Mexico, to "scientifically" examine an uneducated woman who writes books in Greek and Latin, dictated to her by Jesus, and who is filmed while apparently undergoing a [stigmata](#); weeping and bleeding statues; and rose petals with "miraculous" images of Jesus and Mary. The show was truly a worthy follow-up to Fox's presentation of the [Alien Autopsy](#) and [Miracles and Visions](#) films of a few years ago. (I especially liked the authentic touch of having a commercial for a film called "Stigmata.")

The program was mostly a rehash of "[For All Humanity](#)," a film produced several years ago by Ron Tesoriero, an Australian lawyer, about [Catalina "Catia" Rivas](#), the bleeding statue of Cochabamba, and [Nancy Fowler](#), a nurse who started having

visions in 1985 and began causing traffic jams near Conyers Hill in Georgia when word got out that the the Virgin Mary was appearing there on the 13th of the month. (The 13th is special for Maryvisions since she allegedly appeared to three children in [Fatima](#), Portugal, on the 13th of May, 1917.) One hoped that some mention would be made of [Our Lady of Watsonville](#) or of the "[victim soul](#)" of [Audrey Santo](#), but Willesee dumped the Tesoriero segment on Fowler and only added one on Mexican rose petals impressed with medals.

The program's credibility depends heavily upon the reputations of Fox and Willesee. Fernandez does not pretend to be anything more than the host, even if a gushing and fulsome one. Fox has shown repeatedly that it cannot be trusted. Thus, the credibility of the program rests with Willesee. Who is he?

Willesee is introduced by Fernandez as an "internationally respected journalist" and declares that it is "an honor to work alongside" him. She proclaims that he is renowned for his "skepticism and investigative abilities." That should soon change. He is not much of a skeptic, even though his reporting on such topics as psychic ability, dowsing, and acupuncture earned him the 1987 Responsibility in Journalism Award from [CSICOP](#). (He is a respected *broadcaster* in Australia.) The program demonstrates that he is not much of an investigator. His honesty might be questioned as well, based on the fact that he does not mention Tesoriero or his work by name, though Willesee's program is largely a rip-off of the lawyer's documentary on "scientifically inexplicable happenings." Willesee only says that "a lawyer" got him interested in the subject and states that his own film was "seven years in the making." The bulk of "Signs from God," however, revisits Tesoriero's work on Catia (identified as "Katya" by Fox), including interviews with the same "experts", such as Dr. Ricardo Castoñan, a Bolivian psychologist who claims he's investigated many miraculous claims and found that most of them were authentic. The credits for the program state that Michael Willesee Sr. is the executive producer and that he wrote the program with Brian Brown. [Mike Jr.](#) is listed as a supervising producer and Jo Willasee is listed as doing research. Tesoriero is listed as one of the "segment producers." That is the only recognition he is given.

Willesee was an Australian television broadcaster who did a [Current Affairs program](#) for some thirty years before quitting. He found God and returned to the Catholicism of his youth (though he's been divorced twice) due to his belief that God intervened and saved him from dying in a plane crash in 1998. In 1997, he was listed as one of the top 200 richest men in Australia by [Business Review Weekly](#). Things got even better in [1998](#). After making a few dollars in radio and real estate investments, he turned to film making. His first film was on "primitive tribes."

Willasee's critical skills were revealed early with his comment on the main proof that Jesus dictates books on theology in Greek to "Katya" Rivas: she has the "imprimatur" of the local bishop. Maybe he doesn't know what an imprimatur is. It is not a seal of approval that a miraculous claim has been authenticated. The imprimatur indicates only that the material is doctrinally sound, not heresy, according to an official censor. Later, he asserts that he believes that blood from a "bleeding" statue of Christ, which was determined by a scientific lab test to be the blood of a human female, was that of the Virgin Mary! Even Fernandez balked at that speculation. (He also had a CAT scan done of the "bleeding weeping" statue, but for what reason one can only guess.)

When two scientists reproduced holy images on rose petals by pressing holy medals into the petals, Willasee commented that they didn't "completely answer" the question of whether the Monterrey, Mexico, petals were authentic. He also claims that since the Mexican rose petals were not for sale, there was no possible motive for deceit. Hence, he believes God is involved in their production. This naive notion that if money is not a motive, the probability that the "miracle" is authentic increases, was stated at the top of the program by Willasee. (He also is impressed if the claimant does not have a "cult" following and is humble.) He seem completely oblivious to the possibility of [pious fraud](#) or mental disorders that might motivate a person to deceive for Jesus.)

Finally, Willasee's objectivity, skepticism, and critical skills should be questioned if only because the film is so one-sidedly Catholic. Not only do his alleged miracles that science can't explain only involve Catholics, his experts are Catholics, including the one expert he brings in as a skeptic, Fr. Peter Stravinskis, editor of "The Catholic Answer."

Nevertheless, even a pious though uncritical investigator who thinks he is doing God's work might stumble upon a true miracle. Does Willasee's film demonstrate anything of interest to those looking for a miracle? To me, the only miracle is that anyone takes his work seriously.

The program made it clear at both the beginning and the end that there is some connection between natural disasters and claims of apparitions of Jesus and Mary. I can understand the dramatic effect of trying to connect apparent apparitions with doomsday prophecies and the spate of bad weather we've had on this planet during the last decade. It is easy to get people to think of weather and natural disasters in terms of human time, rather than geologic time. Comparisons of one decade with another or even one century with another are, however, misleading. Which assumption do you prefer: an All-Good God created the world in such a way that floods, earthquakes, tornadoes, hurricanes, tidal waves, etc., would be a regular feature of life on earth; or, an All-Good God created the world as a benign place but intentionally destroys us on a regular basis to remind us to stop sinning? I think both views are absurd. Even more absurd, however, is the belief that God picks obscure people to reveal special messages to us, such as "repent" and "Remember: I came to save you."

The film itself does not provide anything of interest except as a lesson in how not to do a scientific investigation of such matters. For example, the main proof that the voices Katya hears (giving her theology lessons in Spanish, Greek and Latin) and the images she sees are not delusions or hallucinations or lies is that when she was given an EEG she produced measurable delta waves while awake. (Delta waves usually occur only during sleep.) If this segment was authentic, all it proves is that Katya has an abnormal brain. Where is the Rosetta stone that declares that God speaks in delta waves? (Note: the film was edited to make it appear that Katya and the doctor performing the EEG [who, for some reason, was in another room behind a soundproof glassed enclosure] were communicating [telepathically](#). We have Mr. Willesee's word that there was telepathic communication regarding whether Katya has epilepsy.*)

The segment of the film likely to persuade uncritical viewers that they have witnessed a miracle is the stigmata segment. Some effort went into priming the viewer by stating that the Catholic Church had authenticated some twelve cases of stigmata, including [St. Francis of Assisi](#) and Padre Pio. Without belaboring the point, Katya dictated the conditions for the event (telling everyone that Jesus was dictating when and where it would happen). The film showed her before, during and after the event. At the start, she has scars, but no bleeding wounds on her hands and feet. During the film she starts to show scratches on her face and hands, then bleeding from slashes, not punctures, from her hands and feet. A blood sample is taken and proves to be almost certainly her own blood. Willesee indicates that he expected the blood to be Christ's! He asserts "there's no way" [the wounds] were self-inflicted."

How thorough was this investigation? First, the film clearly shows that Katya has a rosary with a holy medal wrapped around her left hand and a white cloth clutched in her right hand. On each hand, she is wearing a ring with a protruding setting. Her first wounds are some scratches on her right temple. These are declared by an observer priest to be "consistent" with the crown of thorns wounds of Christ. Her largest facial wound, however, was on her left cheek. Is this a new wound that Christ had, that no one knew about until now? Could she have cut herself with her rings, fingernails, toenails, rosary, something concealed in the white cloth? Of course. Did the investigator make sure she had no sharp objects available to her? No. Did they use several cameras, focusing on her hands and feet at all times, to detect any self-mutilation? No. The cameras focused almost exclusively on her agonizing face and the agonized faces of those watching her suffer. Did they try to duplicate her wounds by using only rings, finger and toe nails, and a rosary? No. Did they even try to duplicate a single scratch using such primitive implements? No. Did they identify any medications Rivas takes and whether she took her meds that day? (Does she take blood thinners, diuretics, etc.?) What kind of investigation was this? If this was the "thorough expert analysis" promised us by Fernandez at the top of the show, then new meaning has been given to that expression. The only thing Willasee did that was remotely scientific was to have the blood tested. The results of that test? Well, they are consistent with self-mutilation. Where I come from self-mutilation is a symptom of a mental disorder. That does not mean that Rivas does not suffer real agony. Her suffering is most likely authentic, unlike the investigation of Michael Willasee.

(Note: Two Australian readers responded and both claim that Willesee left his current affairs program under less than honorable circumstances. They say he appeared on TV appearing to be drunk; Willesee claims he was on medication and was tired and emotional. Matt Crowe described the scene this way:

[Willesee] appeared one day looking very dazed. In between stories he was slurring, mumbling and giggling. Then it all became too much and he burst into uncontrollable laughter for several minutes. He kept trying to compose himself but it was no good. At one stage he had almost fallen off his chair.

Andrew Dare put it this way:

[Willesee] claimed to have taken some medicine, but the fact that he was on air, slurry, giggling and almost falling over ruined his credibility. That show was going downhill anyway into the "We

put a suit in to be dry-cleaned with \$50 in the pocket and 9/10 drycleaners took the money" and "New diet pills - do they really work - our scientific tests (i.e. they hire a guy in a lab coat with a clipboard) prove it" sort of stories.

Mr. Willesee is probably still giggling and falling off his chair at how gullible Americans are and at how ready the Fox Alien Network is to take advantage of that fact.

further reading:

[Nickell, Joe. *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books: Buffalo, N.Y., 1993\).](#)

- [James Randi on the Fox fiasco](#)
- [CSICOP Response to Fox's *Signs From God: Science Tests Faith*](#)

reader comments

One reader, Ermanno D'Annunzio of Adelaide, South Australia, thought the above critique was incomplete. He wanted to know how I could explain the "colored crystals" that appeared on a floor painting. I don't know why I should try to explain it, since Willesee didn't offer any explanation himself. We were told that the glitter miraculously appeared on a print of Our Lady of Guadalupe. Nevertheless, anybody can put glitter on a print. Nothing miraculous about that. Mr. D'Annunzio wants to know how pictures can cry and how a tear got on a print of the Virgin Mary that was under glass. There are many ways to make statues or prints appear to cry, none of them too miraculous. For example, you can surreptitiously dab, squirt or spray water or salt water on the object. We'll never know what method was used in this case because Willesee didn't follow anything resembling a scientific method to investigate the matter. We were asked to take it on faith, on the word of a person who says it's true. Finally, Mr. D'Annunzio is puzzled by how quickly the alleged stigmatic's wounds healed. Since we only have the word of Willesee that the after pictures were taken the day after the wounds appeared, we don't have a very reliable source for this claim. But even if he isn't lying, there is nothing miraculous about wounds healing quickly, especially if they are superficial wounds (mere scratches). Wounds can appear to be worse than they are in some people because they are taking medications that thin the blood. A tiny cut can emit a quantity of blood that indicates a larger wound. Also, makeup can do wonders to hide scratches, marks, blemishes and other signs of our humanity.

26 Dec 2000 (Fox Network re-ran the program just before Christmas, complete with "live" on screen during the showing!)

Re: your attempt to disprove the story of Katya Rivas aired on Fox.

Just wondering if you have actually looked at or read the writings of this woman? What do you make of a woman with a high school education writing things like this? In these languages etc. ? Her writings are located at www.greatcrusade.org. What is your explanation for this? So far, we really haven't seen hard core proof from you that any of this didn't occur. The public is not stupid. We all realize that there are elaborate hoaxes out there but the point of faith is believing in what we can see right?

reply: I took a look at the writing posted at the site you mention and found nothing unusual about them coming from a woman with a high school education. Anyone raised Catholic who has heard priestly devotees of Mary preach would be familiar with the messages of her "writings".

You are right. The public is not stupid, but the public's faith can be easily manipulated by a pious fraud with accomplices like [Giselle Fernandez](#) and [Michael Willesee](#).

update June 27, 2001. Rivas has been accused of plagiarizing her "messages" from God, taking them from José H. Prado Flores book *Formacion de predicadores (Training preachers)*, published six years before Catia's "messages." See [Funk 21](#).

July 22, 1999. KOVR, a CBS affiliate in Sacramento, California, featured reporter [Marcy Valenzuela going gaga](#) over Russell Targ (famed pseudoscientist whose specialty is [remote viewing](#)) and Marilyn Schlitz of the [Institute of Noetic Sciences](#) (IONS), a think tank devoted to rigorous scientific investigation of phenomena which fall outside of conventional scientific models. (That's what they say; you figure it out.) IONS considers traditional science "materialistic" and claims to have advanced beyond that to the level of the "subjective" and is indebted to "the perennial wisdom of the great religious traditions and gnostic groups."* IONS claims not to be a "spiritual sect" but its researchers base their "science" on a metaphysical belief in spiritual reality as the basis of subjective experience. IONS is fond of research into "psychic" phenomena, among other things.

In her report, Ms. Valenzuela offered not one shred of skepticism to balance Targ's and Schlitz's claims that there is very strong scientific evidence for [ESP](#), [psychokinesis](#), [remote viewing](#), etc. The lowlight of the show was when Targ invited her try remote viewing. She imaged and drew what looks like a hill with a line under it. Targ pulled out a little [spoked wheel](#) and she declared "That's amazing." Yes, it is amazing that she didn't see that her picture and Targ's object were not even remotely alike. Yet, she was able to fit the data into the hypothesis quite easily. How come? A good reporter might have launched into a discussion of [confirmation bias](#) or [pareidolia](#).

Schlitz threw out some unchallenged statistics about how successful [ganzfeld](#) experiments have been. Valenzuela concluded: "So researchers today, like those twenty years ago, believe that our senses extend beyond the five we know of into something we don't yet understand. No matter the form of ESP, laboratory studies have shown it's not chance or coincidence, it's something else. The challenge is to figure out what. On special assignment, Marcy Valenzuela, KOVR 13 News." (submitted by David Takemoto-Weerts)

May 10, 1999. The *Register Guard*, a daily newspaper in Eugene, Oregon, reprinted an article from the *Los Angeles Times* which claims that "more than 100,000 Americans are inadvertently killed every year by prescription drugs--one of the leading causes of death in the country." Gordon Kaswell, who alerted me to this article, claims to have found another reference to the research of J. Lyle Bootman and Jeffrey A. Johnson of the University of Arizona School of Pharmacy claiming that the number is 200,000.

The 100,000 figure originated in an article by Lazarou, Pomeranz, and Corey published in the *Journal of the American Medical Association* ("Incidence of adverse drug reactions [ADRs] in hospitalized patients: a meta-analysis of prospective studies," *JAMA*, 1998;279:1200-1205.) The authors claimed that "Fatal ADRs appear to be between the fourth and sixth leading cause of death. Their incidence has remained stable over the last 30 years."

As indicated in the title, the authors did not do original research, but studied the studies of others. Metastudies can be misleading, however, since the protocols used by the different researchers are often very different. You do not get one big study by adding the results of several smaller studies. In this case, the authors studied 18 studies, 14 of which were done between 1965 and 1981.

Gary R. Kravitz, MD, comments:

The results of the meta-analysis by Lazarou et al deserve a reality check. Lumping together voluminous mounds of archaic data with more recent data from a nonrepresentative sample of hospitalized patients and then extrapolating to the entire US patient population can lead to egregious errors.*

Kravitz believes that improvements in medical procedures have significantly reduced the problem of ADRs in recent years. Lazarou disagrees and claims that based on a study by Cullen et al. "a majority of ADRs were missed by most hospital monitoring systems, and therefore monitoring was not useful to improve quality of care." If so, then the only way to reduce ADRs is to stop giving prescription drugs altogether. This would not be very wise, especially since, as Tom Bush, MD, most deaths from ADRs are not preventable.

The Adverse Drug Event Subcommittee at Santa Clara Valley Medical Center has been intensively evaluating ADRs at our hospital through an active surveillance of all admissions. We have analyzed each ADR to determine whether it was preventable and have consistently found that only 30% of the ADRs that occur in

our inpatient wards are preventable. . . .This would decrease the authors' projection from 106,000 deaths per year to 35,000 deaths per year.*

The authors responded to Bush by saying that

we had a different goal: our purpose was to increase awareness of the dangers of drugs when properly prescribed and administered (i.e., excluding errors).*

I would have thought that scientific researchers would have had a different goal: to find out what the dangers are of properly prescribed and administered drugs. These authors indicate that they were looking for data to support their belief in the extreme danger of prescription drug use.

Other critics claim the numbers are unjustified based on the data, and that the actual number of ADR deaths in the U.S. is somewhere between 13,000 and 25,000.

David W. Bates, MD, M.Sc., for example, writes

One study that can serve as an external standard to address this issue and has the methodological advantage of being population based is the Harvard Medical Practice Study (MPS).[2] The MPS estimated the magnitude of iatrogenic injury in New York in 1984; when its data are extrapolated, the national mortality rate due to all types of adverse events was 180,000.[3] Drugs represented only 14.1% of serious injuries (those resulting in death, permanent disability, or disability lasting longer than 6 months), although the percentage resulting in death was not reported. Nonetheless, it would be surprising if there were actually 110,000 deaths annually from drugs alone; based on the MPS data, the expected figure would be approximately 25,000.

It is desirable to have knowledge about the risks of any medical protocol, but there is little benefit from exaggerating risks based on questionable inferences from data. It is also useful to put these numbers into perspective. Millions of Americans take billions of pills each year. Many who die due to adverse reaction to drug treatments are suffering from terminal cancer and other fatal disorders. There are some 30,000 fatalities a year that are [firearm-related](#), more than half of which are suicides. Though it is difficult to know for sure what our risk of death is in taking prescription drugs, some might take a small measure of comfort in knowing that it seems likely that the risk is less than that of dying by a firearm.

further reading

- [Life Expectancy Hits New High in 2000; Mortality Declines for Several Leading Causes of Death](#)
- [Detailed External Causes of Death for Unintentional Injury](#) (1993-1995)
- [Make No Mistake: Medical Errors Can Be Deadly Serious](#) (States that "The

IOM estimates that preventable medication errors result in more than 7,000 deaths each year in hospitals alone, and tens of thousands more in outpatient facilities.")

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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Readers are encouraged to send *Mass Media Bunk* material to:

btcarrol@skepdic.com

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

8

July 26, 1999. *Newsweek* was just one of many publications to resurrect the myth of the so-called Kennedy Curse in [AN AMERICAN DYNASTY Charmed Yet Cursed](#) by Kenneth Auchincloss. If one considers the size of the Fitzgerald/Kennedy clan, their wealth, their extraordinary achievements and their propensity for taking risks, then their misfortunes do not seem disproportionate. The media would have us believe, however, that if a member of this clan dies in war, gets cancer, has a mental disorder or causes harm to self or others because of poor judgment, it's because they're [cursed](#). If they are cursed, then so are the millions of others who suffer the same fate.

The FK clan is no more cursed than any African family destroyed by slavery or any Jewish family destroyed by Nazism was cursed. The media would have us believe that the FK clan have suffered a disproportionate amount of harm. Their harm is certainly disproportionately public, but that is because the clan is rich and famous, not because they are cursed. Their harm has been disproportionately influential because some members of the clan have been extremely influential.

If anyone in the family was cursed, it was Rose Fitzgerald Kennedy who lived to be 104.

(more on the curse at [US News & World Report](#))

June 1, 1999. Last night, ABC's "20/20" did a follow-up program on Audrey Santo, a Worcester, Massachusetts, teen who has been in a coma-like state known as *akinetic mutism* since a swimming accident when she was three years old. Audrey receives around the clock care from a staff of nurses and family. "The Miracle of Audrey" first aired on October 4, 1998, with host Lynn Sherr. In that program, Sherr asked: "Is this 14-year-old child a miracle worker, a messenger of God? Or is this all a cruel hoax, exploiting a sick and innocent girl?" Sherr still doesn't have an answer, but part 3 of the story will be presented after the Catholic Church finishes the next stage of its investigations into alleged miracles being worked through Audrey.

On August 9, 1987, Audrey fell into a backyard swimming pool. She suffered massive hypoxia: the oxygen supply to her brain was cut off for several minutes, killing numerous brain cells. Her mother Linda blamed the hospital staff at the University of Massachusetts Medical Center for Audrey's condition, claiming that they gave her a drug overdose and broke both her legs in physical therapy. Linda says that Audrey is in a "non-moving, non-speaking state," but she is not in a coma.

A year after the accident, Linda took Audrey to [Medjugorje](#) in Bosnia-Herzegovina (formerly part of Yugoslavia), a pilgrimage destination since 1981 after some local children claimed that the Virgin Mary had appeared and conversed with them (à la

[Fatima](#), where the Virgin allegedly appeared to some children named Santos). (The local bishop has denounced the Medjugorje apparition as a fraud, to no avail. The pilgrims keep coming.) Linda claims that at Medjugorje the Virgin Mary asked Audrey if she would agree to become a "victim soul," someone who takes on the sufferings and ailments of other people. According to her mother, Audrey agreed. How even a healthy child at age four would be expected to understand the concept of a "victim soul" is a mystery. What is not a mystery is that while on this pilgrimage Audrey suffered cardiac arrest and had to be evacuated to the U.S. so she could receive proper medical care. The evacuation is said to have cost \$25,000. Her mother, however, did not see the cardiac arrest as Audrey's first experience as a "victim soul." Instead, she blamed it on being near an abortion clinic.

According to [The Boston Phoenix](#)

The miracles started soon after her return to Worcester [from Medjugorje]. Since 1989, when nurses first spoke of an overpowering scent of roses, the reports have proliferated to include virtually every supernatural phenomenon in the Catholic repertoire: icons weeping blood; statues moving of their own accord; miraculous healing; bleeding communion wafers; the face of Jesus appearing in that blood; blood appearing spontaneously inside a tabernacle; the Virgin Mary appearing in cloud formations overhead; and, dripping down the walls of the garage, copious amounts of spontaneously appearing oil, which is collected on cotton balls and distributed in tiny Ziploc bags to the faithful, who have used it to treat things like tumors.

Eventually, the Catholic Church began an investigation of the alleged paranormal and miraculous events. In January of 1999, the Bishop of Worcester issued a [preliminary report](#). Some highlights from that report follow:

When one applies fundamental rules of logic to the situation, even if the presence of the oil cannot be explained, one cannot presume that the inability to explain something automatically makes it miraculous.

Many of the cases cited publicly concerning Audrey's intercession have had medical opinions, which did not rule out the potential for normal recovery (in whole or in part.)

We are not yet able to confirm claims of miraculous events occurring at Audrey's home or as a result of a visit to Audrey, or from the oils associated with her.

The most striking evidence of the presence of God in the Santo home is seen in the dedication of the family to Audrey.

Anyone who has seen the 20/20 piece on Audrey can attest to the the mother's devotion to her daughter. She has turned a tragedy and bitter event into a celebration. She has taken a life that would generally be regarded as over and useless, and turned

it into something purposeful. Is Linda Santo using her daughter, consciously or unconsciously, to assuage the guilt and pain associated with the backyard accident over a decade ago? In any case, she has turned the family house into a shrine. The garage is a chapel, a glass window has been placed in the bedroom wall so viewers can see Audrey in her bed, and the house is a veritable warehouse of statues, icons, chalices, rosaries, etc. [Every Wednesday there is a constant stream of visitors to the house](#), which has become a place of pilgrimage. And there is an annual Mass on August 9th at the local high school football field where Audrey is displayed in a glass walled house on the fifty-yard line.

If the case is a hoax and there is fraud going on, who is the one pouring the oil over the walls, statues, etc.? Who is putting a substance that appears to be blood on the eyes of paintings and on eucharistic bread wafers? [The blood has been analyzed](#) and found to be human, but not that of anyone in the immediate family. It could be the mother, but it is just as likely that it is one or more of the child's pious caretakers. Several nurses and therapists are needed to provide Audrey with 24-hour-a-day care.

The oil was analyzed for 20/20 and found to be 75% olive oil and 25% unknown. According to *The Washington Post* (July 19, 1998) who also commissioned a test of the oil, their sample was found to be "80 percent vegetable oil and 20 percent chicken fat." The concoction could be prepared in any kitchen, according to the chemist who did the test.

Many people seem to believe the paranormal and miraculous claims must be true since the Santo family is not getting rich from the constant stream of visitors and mail they receive from people around the world hoping for a miraculous cure. But, as [Joe Nickell notes](#), "Money is rarely the primary motive, the usual impetus being to renew the faith of believers and confound the doubters." The former goal has certainly been achieved, but the latter leaves much to be desired. [Pious frauds](#) are common and a proper investigation by skeptics looking for deception and trickery would probably uncover the source of the hoax, but it would probably not end the belief in a four-year-old making a compact with the Mother of God who could come up with no better way to work miracles than through an innocent "victim soul" who must lay mute for the rest of her life.

May 25, 1999. After Kosovo and school shootings, soft news goes down easier. Today, *The Sacramento Bee* ran a story from Booth Moore of the *Los Angeles Times* on the life and times of Naomi Tickle, a "practicing personologist." Tickle is the founder of the [International Centre for Personology](#), which, despite the spelling of 'centre' is centered in San Francisco. Also, despite the new name, *personology* is little more than a rehash of [physiognomy](#), the 16th century [pseudoscience](#) that has been resurrected several times over the ages.

Personology reveals such wondrous truths as that "People with big irises really feel emotions" and women with their eyelids exposed (like Hillary Clinton) are women who "like to get to the bottom line." According to Ms. Tickle, "Hillary has an oval forehead, so she's a maintainer....Her eyes are wide-set, which says she is also a very tolerant person.

[Personology](#) also reveals that people with large lips love to talk. Whereas, "people

with thin lips have a hard time expressing what they feel." Best of all, personology can help you pick the right mate. Just make sure that you have similar hair texture and that your faces have a similar width. Make sure your eyes are about the same distance apart as your prospective mate's eyes. And don't forget the most important bit of wisdom that personology has to offer: "Short-legged people like to run around, but long-legged people are content to be couch potatoes." I've noticed that myself while watching the NBA.

April 17, 1999. "[Star child](#) - A local freethinker believes he holds the skull of a young alien who was raised by an Earth mother," by Lynne Jensen in the New Orleans *Times-Picayune*. This article features [alien abduction](#) and [Zecharia Sitchin](#) devotee, Lloyd Pye, and a pair of skulls he is putting on display as those of an alien and its human mother's. The skulls were allegedly found near Chihuahua, Mexico, about 70 years ago. According to Pye, the alien "star child" was fathered by one of Sitchin's Annunaki, alien beings who used to propagate here until they had to go home for a nuclear war. According to Jensen, Pye was an Army intelligence specialist who has written a couple of futuristic novels and a book on human origins titled *Everything You Know Is Wrong*.

Near the end of the article, Jensen quotes Tulane University physical anthropologist John Verano as saying that the skull appears to be that of a child whose head was "cradle boarded." Some Indian cultures artificially reshaped the heads of their children by strapping the head to a board.

For some reason, throughout the article, Jensen refers to Pye as a "freethinker." She even touts his [WWW page](#) where you can read all about his star child.

[submitted by Gerard E. Trigo]

February 10, 1999. "To handwriting expert, life slows to a scrawl," by Nadia Lerner (*Stamford Advocate*), in the *Sacramento Bee*, p. F4. Apparently the Bee was desperate for copy today. This article is little more than a promotional piece for [graphologist](#) Peggy Kahn, who charges \$200-\$400 to tell employers who to hire based on an analysis of the applicant's handwriting. Kahn claims she learned how to do this by studying graphology "for four and a half years at The New School for Social Research in New York." I wonder if she studied in the [philosophy department](#) with Hannah Arendt, Aron Gurwitsch, or Hans Jonas. She also claims she is a former psychologist. I suggest someone do a handwriting analysis of Kahn to determine her credibility.

Kahn claims that she has a long list of clients that includes not only businesses but people trying to decide if they are in the right job or have found the right mate. Kahn claims that your handwriting is a window to your identity and can reliably be used to screen out potential crooks and incompetents. Of course, she has no proof of these claims. She cites the 1986 book called [Scientific Aspects of Graphology: A Handbook](#) as claiming that some 3,000 American companies are using some form of handwriting analysis in their hiring process. She does not mention that the book is edited by Baruch Nevo of the National Institute for Testing and Evaluation in Jerusalem, Israel. Graphology is rampant in Israel. According to Kahn, "90 to 95 percent of all jobs in Israel require handwriting analysis for job candidates."

Also cited in the article is Janice Klein, widow of Felix Klein, founder of the National Society for Graphology (1972). She claims that in a study by her husband published by the Hunter College Psychology Department in 1973, "graphology is shown to have about a 95% success rate in recognizing depression and schizophrenia." I suppose one is to believe that the graphologists ignored the *content* of the writing in making their diagnoses.

The only balance in the article is a short digression on a very important issue: is graphology an infringement of a person's rights against invidious discrimination? Why wouldn't it be? If you cannot deny me a job or entrance into a school because of my race or religion, how can you be justified in discriminating against me on the basis of my handwriting? Nevertheless, Lerner claims that Lewis Malthby, director of the National Employment Rights Office at the American Civil Liberties Union in Princeton, N.J., claims it is legal to discriminate on the basis of handwriting. If this is true, why isn't the ACLU fighting it in our courts? Malthby agrees that graphology is "arbitrary, unfair and irrational" and shouldn't be used as a hiring tool, but apparently does not see discrimination on the basis of handwriting as unconstitutional. He claims that, in any case, it is not a big problem. He believes that "most employers are too sensible to use it." Another civil liberties leader--Joe Grabarz, executive director of the Connecticut Civil Liberties Union--is cited as noting that graphology is unreliable.

Whether it is a big problem or not, it seem apparent that the use of graphology by employers is a violation of our civil rights. If it isn't, it should be.

further reading

- [Graphology Fact Sheet](#) by John A. Thomas (North Texas Skeptics)
- [The Use of Graphology as a Tool for Employee Hiring and Evaluation](#)
- [Mass Media Funk](#) - Barry Beyerstein and Alan Alda on graphology
- [Mass Media Bunk - graphology](#)
- [Mass Media Bunk - more graphology](#)

January 24, 1999. "Dangerous Doctors," by [Michael L. Millenson](#), in the Forum section of *The Sacramento Bee* (taken from *Washington Monthly*). Millenson is the author of [Demanding Medical Excellence: Doctors and Accountability in the Information Age](#) (1997). He is a respected writer on medical practices and care. Not everything he writes is bunk, but one statistic he frequently uses is troublesome. He claims: "Most patients would be very surprised to learn that more than half of all medical treatments, and perhaps as many as 85 percent, have never been validated by clinical trials." At the very least, this is a misleading claim. Millenson has had several chances to clear it up, but he just keeps repeating it for its polemical value.

Karen Burton, who hosts the Internet site [Shucks! A Heretic in the Heartland](#) and considers me to be a physician's advocate, has made me aware that Millenson's book (which I and, I assume, most readers of his newspaper and magazine articles have not read) cites as the source for this statistic page 5 of [The Impact of Randomized](#)

[Clinical Trials on Health Policy and Medical Practice](#) from the Office of Technology Assessment (OTA), available online. According to OTA, "It has been estimated that between ten and twenty percent of all current medical procedures have been shown efficacious in controlled trials." Who did the estimating? OTA cites itself in a 1978 study called [Assessing the Efficacy and Safety of Medical Technologies](#). On page 60 of the 1978 report OTA writes: "White (426) estimated that 80 to 90 percent of all [medical] procedures have been evaluated by informal methods." The reference is to Dr. Kerr. L. White's 1968 article, "International Comparisons of Health Services Systems," [Milbank Quarterly](#), 46:117. According to [The National Council Against Health Fraud](#), Dr. White claims this was an "armchair estimate" aimed at stimulating research to get more accurate information and he is upset that the statistic has been used in propaganda by enemies of science-based medicine and friends of so-called "alternative" medicine.

It is important to note that OTA cites White not disparagingly, but to remind the reader that most medical technologies are tested by informal methods, most often by personal experience. On page 60, the report notes that "It is important to point out that many medical advancements have properly and successfully proceeded without rigorous statistical methodology of investigation." As examples the report notes the use of vitamin B12 to treat pernicious anemia and cast application for forearm fracture. OTA also notes that "In some cases clinical trials may be prohibitively expensive. In other cases trials may pose difficult moral and ethical considerations (p. 75)."

It is clear from OTA's reports that it sees controlled clinical trials as just one method among several for assessing the safety and efficacy of medical procedures. In the 1978 study they note that randomized controlled clinical trials have become prominent in the past twenty years. OTA wisely reminds us that "No technique is universally applicable (p. 4)."

Thus, while Millenson did not pull his statistic out of thin air, he does not put it in perspective and tries to scare the reader by implying that physicians do not use reliable methods for determining what procedures to use.

managed care

Millenson's latest article is a lengthy defense of managed care under the guise of an attack on incompetent and ignorant physicians. Early on he promotes and defends "evidence-based medicine". He tells us that our personal physician probably doesn't know what the latest evidence is and then he throws in the stat about most treatments never having been validated. He backs up his claims with many statistics whose sources he rarely mentions. One of his favorites is the stat about the 50,000 annual hospital deaths due to infections incurred while in the hospital. He never mentions how many hospital patients this stat is in relation to, nor does he note how many people die annually of infections incurred outside of the hospital. [[In 1997, there were 33.6 million admissions to U.S. hospitals](#), which would make the death rate from hospital infection 0.001, or one tenth of one percent.] Nor does he hazard a guess at to what percentage of those people would have survived had they not gone to the hospital at all. [Nor is there any mention of the fact that overuse of antibiotics, combined with more and more invasive and daring procedures, are bound to lead to

more infections over time.] [Hospitals infection is a problem](#)--it may even be much greater than Millenson suspects--and the number of infections should be less than they are, but the issue isn't a simple one of incompetent and ignorant physicians.

Omitting relevant data seems to characterize Millenson's style of writing. He claims that since the survival rate of elderly heart attack patients is the same for those who get and those who do not get heart bypasses, angioplasties and catheterizations, that it is a complete waste to give these treatments. Survival rate is one measure, but not the only measure of why a treatment ought to be given. Reduction of pain is another, and if a treatment reduces pain and enhances the quality of life without lengthening it, so what? Millenson mentions no other measure of the value of such treatments.

Another curious feature of Millenson's article is that he sees economic and political agendas everywhere except with managed care. I find that a glaring omission. I have no particular quarrel with managed care, but one would have to be one edge shy of a dull blade not to recognize that managed care is a mighty big economic matter and its advocates have their economic and political agendas just like everyone else in the medical care business.

Another interesting omission is any discussion of patient responsibility for asking questions and doing research. He seems satisfied with blaming physicians for not being omniscient, or characterizing them as incompetent if, for example, they do not routinely prescribe aspirin to all heart attack victims.

I don't know what value Millenson's polemics have, but I do know that you don't need a crystal ball to know that given the large number of physicians out there, there must be a significant number who are incompetent. Why he seems to think that most of the incompetent physicians are likely to end up outside managed care, while most of the competent ones end up inside, is something I wasn't able to figure out from his labyrinth of statistics.

further reading

- [The evidence for evidence-based medicine](#) R. Imrie,1 D.W. Ramey
- [CenterWatch Clinical Trials Listing Service](#)
- [David Kessler statement](#)

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Commentary on Sacramento City College Conference on Belief and Skepticism November 1997

Introductory comments: In addition to speakers on folklore and on pseudoscience in the media, the conference featured two speakers who focused on pseudoscience in their disciplines, psychology and medicine. While the speakers on psychology and medicine went into some detail about their subjects, I would like to introduce my comments on their presentations with one general comment.

There should not be a need for a person seeking treatment for an emotional, mental or physical problem to share the metaphysical beliefs of their therapist, psychiatrist or family doctor. A person's *right* to seek a shaman or alien abduction specialist should not be confused with the *need* to find a metaphysical match. I recognize that faith healing can affect anything which suggestion, diverted attention, and other agreed upon elements in any given sociocognitive structure can affect, such as weight loss or quitting smoking, temporary relief of minor pain, and a long litany of social behaviors. There is no scientific evidence that faith can cure cancer or schizophrenia or that it can restore a liver or brain damaged by years of alcohol abuse. For me, the most basic sign that a psychotherapy or health practice is questionable and to be avoided is the requirement that I must share the metaphysical belief system of the practitioner in order to be helped. I never discuss religion or metaphysics with my physicians. I assume some of them have been Catholics, Jews, Protestants, Muslims, Hindus, etc. It should not matter. When I had surgery, I didn't discuss my personal life with my surgeon and he didn't tell me about his personal life. To me, such things are irrelevant. He may have been a very spiritual man, but all I was interested in was his knowledge and experience as a surgeon. For him to have required me to share his faith, or for me to have required him to share my beliefs, would have been inappropriate and unnecessary. I realize my attitude would be different had I been born into a pre-scientific world of shamans, high priests and witch doctors. But I wasn't. I was born into a scientific culture, and I do not long for *the good old days* when the life expectancy was one-quarter of what it is now and the mentally ill were believed to be possessed by devils or gods.

Carol Tavris: "The Psychology Wars: What professionals and the public should know about the growing scientist-therapist conflict"

[Dr. Tavris is a social psychologist, lecturer, essayist and author of several books, including *The Mismeasure of Woman*]

Dr. Tavris opened the conference with a talk on the growing influence of psychotherapies which have not been scientifically tested (e.g., [repressed memory therapy](#)) or cannot be scientifically tested (e.g. projective tests such as the [Rorschach](#)) or which have been tested and shown to be false therapies (e.g., [facilitated communication](#)). According to Tavris, over 90 people are in prison today because of bad science, particularly in the area of allegations of child abuse and [satanic ritual abuse](#). Many therapists and social workers are not only practicing bad science, they are promoting it with unproved or false claims regarding the relationship of child abuse and adult behavioral problems.

For example, repressed memory therapists begin with a number of false or questionable assumptions. They start with the assumption that specific problems such as bulimia or depression are due to childhood sexual abuse which has been repressed and forgotten by the patient and that therapy must ferret out these repressed memories in order to "cure" the patient. Despite the fact that no scientific study has yet uncovered any specific set of symptoms in adults which are associated with childhood sexual abuse, the repressed memory therapists continue to maintain the following false notions:

- 1. Abused children become abusers.**
This is not true. Two-thirds of those abused as children do *not* become child abusers themselves.
- 2. Children who have been abused will reveal this abuse by the particular way in which they handle questions while presented with anatomically correct dolls.**
This is not true. Studies have shown that about 50 % of children who have not been touched, much less abused, claim they have been touched and will use the dolls to graphically display the way they were touched. (The children were video taped while being examined by a doctor who did not touch their genitals, yet the children under continued questioning eventually confabulated detailed stories of genital and anal touching and penetration.)
- 3. Children are too young and inexperienced to make up the stories of sexual abuse they tell.**
This is not true. Children have very vivid

imagination and can confabulate with the best of humanity. What is true is that children who initially deny having been touched in the genital or anal area will usually change their story if they are very young, repeatedly asked the same question, encouraged by the interviewer to fantasize, threatened if they don't agree they were touched and reminded that other children have already admitted they were touched.

It is not surprising that interviewers of children can get the most preposterous and incredible stories from their young wards, such as leaving day-care and taking airplane trips to the desert where giraffes are sacrificed along with human babies. What is surprising and frightening is that such [poor interviewing techniques and therapy can put people in prison.](#)

Two other false beliefs among many psychotherapists and the general public mentioned by Tavis are that children of alcoholics become alcoholics (the majority do not) and that subliminal messages influence behavior (there is no evidence that they do).

How does such bad science get established? According to Tavis, one major problem is that there is no connection between academic/scientific training and getting a certificate which allows one to legally practice psychotherapy. This is true. In some cases all it takes is a few dollars and a weekend seminar on AIDS counseling or hypnotherapy and the participant can become a certified therapist. Nevertheless, it seems to me that much of the bad science and misinformation about child abuse, psychological problems and proper treatment for those problems, arises from those with [Ph.D.s in psychology](#), who have been trained in accredited academic institutions. I tried to get Dr. Tavis to address this issue in the question and answer session, and I must say that I did not feel as if I had been given an adequate answer. There is something else going on besides inadequately trained therapists, since adequately trained psychologists and psychiatrists are often the greatest perpetrators of pseudoscience and false claims. She mentioned Dr. Bruno Bettelheim's claim that bad mothering causes autism, as well as Dr. Freud's claims about penis envy. This list is actually a very long one and deserves exploring, but this is not the time for it. Suffice it to say, that all this bad science cannot be blamed on bad therapist education or training and the tawdry way therapists are certified. A consumer cannot tell the difference between a good therapist and a quack therapist by looking at their degrees and certificates. If the popularity of junk science among therapists is due to poor education and training, then the best schools in the world ought to be scrutinized, for it is often their graduates who are advancing the cause of questionable science, science cloaked in metaphysics, and pseudoscience, e.g., Dr. John Mack (professor), Dr. Andrew Weil and Dr. Deepak Chopra (graduates), all of Harvard medical school.

Furthermore, as a profession, psychologists and psychiatrists (and the more degrees and credentials the better here) don't share the kind of tentativeness that characterizes most scientists. Witness their willingness to testify as to their "expert opinion" on human behavior. Where even the layperson recognizes it is dicey to predict what anyone will do in the future, these "experts" offer their contradictory opinions in the courtroom without hesitation. Granted, this indicates a major flaw in our legal system, nevertheless, if these experts expect the general public to have any faith in them, they ought to admit that they don't really know how a person will behave in the future .

She pointed out that there seems to be a great deal of [post hoc reasoning](#) among therapists who reason from certain symptoms to the cause of those symptoms as childhood sexual abuse. She also noted that many therapists are deluded by [confirmation bias](#) and [selective perception](#). They do not set out to falsify or disconfirm hypotheses, but are on the constant outlook for confirming "evidence." Many seem undisturbed with basing their therapies on non-falsifiable claims. They seem more interested in their personal insights than in scientific testing of hypotheses. Some, as those in facilitated communication, seem unmoved by empirical tests which repeatedly falsify the fundamental claims of FC. And these therapists seem oblivious to facts such as "70% of all abused children do not become abusers themselves." Why there is this preponderance of anti-scientific and pseudoscientific bias amongst so many therapists is intriguing, but I do not think the answer is to be found in who has the training and academic credentials and who doesn't.

Whatever the causes of the popularity of pseudoscience in psychology and psychiatry, it behooves the general public to become critical thinkers. We cannot trust the experts. We must be able to evaluate the claims of the experts and determine who is more credible. The stakes are too high to let ourselves be duped by claims which "sound true." That's not enough. We have to be willing to do some investigation ourselves. There is no other way. We may not be able to do scientific experiments ourselves, but we can read about the experiments of others. We can go to the library, use the internet, etc., to get information which we can evaluate. We have to learn how to tell when a study has been done properly, when the samples are too small, when the protocols are biased, etc. This is not easy, but it is not impossible, either. We bear the responsibility for our beliefs. If they are false, and we could have corrected them by being more critical in our thinking, we are responsible for any harm which accrues to ourselves or to others because of those false beliefs.

Dr. Tavis explored the notion that scientists seek impersonal explanations with predictive power, but therapists have as their goal "patient satisfaction" not objective truth. In fact, some therapists admit that they do not care what the objective truth is. Therapists try to come up with a narrative which makes sense of the patient's behavior and thoughts; whether the narrative bears any

relation to what is true doesn't matter for therapy. But it does matter. It matters not only to the parents who have been falsely accused of abuse by their child thanks to the probing of a therapist who has facilitated the "recovery" of a "repressed memory." It matters to therapy as well. How could a whole school of therapy develop around the notion that the truth doesn't matter? This is a philosophical position; it is a matter of values. The consequences of this belief are horrendous. It is one thing to acknowledge that what a person believes affects them and can affect them profoundly even if what they believe is false. It is quite another to hold that a therapist has no obligation to correct a false belief or delusion.

Even worse is the belief that a therapist should encourage a patient's false beliefs and delusions. Do these therapists think the patient is a monad? Don't they realize that the patient lives in the world with other people and if the delusions or false beliefs are about those other people, the objective truth does matter to the well-being of the patient? Very few human beings live without relationships to family and friends. The mental health of a person is affected by those relationships. We may not be totally dependent on each other, but a network of family and friends should not be replaced by the therapist. Unfortunately, that is exactly what many therapists strive for: they isolate the patient from family and friends and create a dependency upon themselves. These bad therapists do this whether they've been trained for eight years at Harvard or 8 hours in Monterey.

Focusing on the difference in the goals and methods of therapy and scientific research can be misleading to the general audience. I heard more than one participant grumble about the lack of concern for patient satisfaction. It seems that a general audience may need to be reminded that while patient satisfaction is a good thing, when it becomes the goal of therapy or treatment, and becomes either identified with or secondary to the health and well-being of the patient, focus on it can be dangerously misleading. One wants not only a satisfied customer but one you have really cured or made well. It will not do to send people happily to their graves or forward to wreak havoc on the lives of others.

Wallace Sampson: "Pseudoscience in Modern Alternative Medicine"

[Dr. Sampson is retiring as a professor of clinical medicine at Stanford Medical School. He will be editing a new journal, the *Scientific Review of Alternative Medicine*, a peer-reviewed medical journal.]

Dr. Sampson began his talk by blaming the popularity of alternative medicine on the "cultural relativism" of medical systems which resulted from "postmodernist deconstructionism." This may be true, but it is hardly of

interest to the general public. In any case, if he is right, there probably was little point in his noting that of the hundreds of papers on homeopathy, acupuncture and chiropractic, there is little evidence that these alternative health practices offer more than a [placebo effect](#). There may be a group of radical feminists who maintain that *science is just another way of knowing*, a *male* way at that, but the general public probably does not hold such an opinion. I think Dr. Sampson should give the general public credit: they're not cultural relativists; they simply recognize that scientific medicine is fallible and generally recommends either drugs or surgery for what ails you. The majority of those who choose chiropractic over standard medicine do so because they are afraid of surgery or do not want to take pain killers, not because of their epistemological stance. There may be other reasons besides epistemological ones which lead so many people to seek a "natural" cure for what ails them. It does little good to show people who are mistrustful of scientific medicine how scientific studies have shown the ineffectiveness of alternative medicine. They also know about the dangers of standard medicine. It really isn't an epistemological issue; it is a pragmatic and utilitarian one. Which method is cheapest, safest and least likely to harm me?

Accusing the alternative health advocates of anti-science bias--another of Sampson's claims--is about as likely to be true in general as the accusation that standard medical doctors are all cold, indifferent fiends just waiting to amputate the wrong leg. Personally, I believe it serves little purpose to cast a blanket shadow over all alternative health practitioners. The issue is not really one of differing personalities or attitudes towards science, especially since many of those practicing alternative medicine are well-trained in science and do not reject science outright.

Sampson also noted that many alternative health practitioners claim they are persecuted by the medical establishment. This may be true, but is probably of little interest to the general public. In any case, it has nothing to do with whether any particular alternative health practice is pseudoscientific.

Another topic Sampson took up was the National Institutes of Health Office of Alternative Medicine. I think this is a topic he might have focused on more, perhaps exclusively in a short talk; for the history and present status of this agency affords a careful exploration of how pseudoscience and junk science, supported by powerful political leaders, has infiltrated a basic government concern: the health and well-being of its citizens. Dr. Sampson did a pretty good job in explaining the role of some of the key figures in this fiasco, but again, to note that OAM is "stacked with quacks" (which I believe is true) needs to be fleshed out with evidence as to how they are replacing standard research techniques and testing methodologies in favor of junk science and pseudoscientific concerns. Dr. Sampson did give some examples of the watering down of scientific methodologies in OAM, but attention to a lot more detail might have been more persuasive.

I know that some in the audience cringed when Dr. Sampson said things like "chelation therapy *can't* work" or "homeopathy *can't* work." Here I think there was an epistemological problem. Some took this to mean that the modalities are metaphysically impossible, i.e., we can't imagine them working without contradiction. I don't think that is what Dr. Sampson meant. I think he meant to claim that these methods are *empirically* impossible. I think he is correct for homeopathy, i.e., given the way the empirical world is, a substance which is so diluted as to have no molecules remaining cannot be effective without a miracle taking place. Our standard understanding of cause and effect requires the cause to be present for the effect to occur. It would be empirically impossible, for example, for a vaccine to work which had been so diluted as to have no molecules of the vaccine remaining in the inoculation. However, I do not know what his argument is to support the claim that chelation can't work to cure vascular diseases. I have seen studies and arguments that support the claim that [chelation](#) *doesn't* work, but none that it *can't* work.

If Sampson plans to take his show on the road, he might want to consider a few changes in the way he makes his case against alternative medicine.

For example, he might want to soften his all-or-nothing approach: to be a rational skeptic one must accept all of conventional medicine and reject all of alternative health care. This might fly at a CSICOP meeting but is unlikely to be met with approval by the general public. It is much more seductive to praise shamans for their great wisdom gained by trial and error in the days before scientific testing could be done to explain why their remedies work. There is some value in studying shamanic recipes and testing bark, root, plants, etc., which seem promising. It is unlikely that shamans have been giving their patients lethal herbs for generations without detection. Much more dangerous are the untested remedies being proposed by medical doctors such as [Dr. Max Gerson](#) or naturopathic doctors such as [Dr. Kurt W. Donsbach](#) and [Dr. Harry R. Alsleben of the Hospital Santa Monica in Rosarito Beach, B.C., Mexico](#).

I know that I have been criticized by a number of alternative health advocates for my "broad brush" approach in criticizing alternative medicine. My format, however, gives me an advantage over Dr. Sampson. In a public talk the broad brush approach is dangerous. One can only cover so much. Hence, many broad claims will necessarily go unexplained and undefended. In the *Skeptic's Dictionary* I can flesh out my claims, not only with [individual entries on specific alternative therapies or practitioners](#), but through responses to reader comments. Also, I don't feel any need to defend standard medicine, as Dr. Sampson does. Many of my readers criticize me for not attacking standard medicine. I have tried to explain several times why I do not, but my explanations seem to fall on deaf ears. Dr. Sampson defended standard medicine on two main grounds: the profession is dominated by scientists and by people who follow the highest of ethical standards. I would have left out

the reference to ethical standards simply because it is not true: there is no scientific study which shows that medical doctors are any more ethical than any other group of people. Furthermore, many of those practicing bad science and engaging in unethical practices are medical doctors. I think if one wants to take the higher ground, one should stick to scientific methodologies, not personalities or professions. One does not have to defend standard medicine or medical practices by defending those who practice it as a higher sort of being.

I think it behooves the scientist and defender of science to be humble, not arrogant; to respect the fallible nature of scientific inquiry and knowledge, rather than gloss over errors or harms done in the name of science. Medical science is not only fallible, but skimpy. This should be admitted up front. If there is an argument in favor of medical science over alternative medicine, it ought to be in terms of the reasons for preferring control studies over intuition and insight. And, while it is probably pointless in a talk to the general public to hack through the jungle of metaphysical beliefs which underlie much of alternative medicine, one should not forget that one of the main reasons many alternative practices are attractive to many people is just because of the metaphysical baggage the alternative therapies carry with them. Dr. Sampson referred to a list of words and phrases which he said are "misused" by alternative advocates, e.g., *energy* and *life force*. These concepts have no place in scientific medicine, but many people base their lives upon such concepts. I think it is best to simply point out that metaphysical beliefs in the soul, or life forces or mysterious energies are not required for scientific medicine to work. Nor must they be denied for scientific medicine to work. They are not empirical concepts, cannot be subjected to scientific analysis and anyone who claims that science can be united with such concepts into some sort of harmonious new field of knowledge is deluded. Metaphysical claims are non-empirical, non-falsifiable and untestable by empirical methods. That does not mean they are inferior to scientific claims, but it does mean that they must be evaluated in ways differently from scientific concepts.

Many in the audience did not seem to understand the significance of Dr. Sampson's claim that concern with "patient satisfaction" is not a scientific concern, but it is a major concern of alternative practitioners. This makes it sound as if medical doctors practicing standard medicine don't care about their patient's satisfaction with their treatment. This misses Dr. Sampson's point. The scientific validity of a therapy or treatment should not be measured in terms of subjective reports because such reports are notoriously unreliable and self-validating. This does not mean that the scientist does not care about the happiness of his or her patients. It means that patients may feel they are better, when in fact they are not. If you are getting a cancer treatment and feel great, that does not mean the treatment is working. Likewise, if you are getting cancer treatment and feel awful, that does not mean that the treatment is not working. Objective tests are needed to determine whether the treatment is working. This doesn't mean that the scientist does not care how the patient feels; it simply means that how the patient feels is not a reliable measure of

the effectiveness of treatment.

Dr. Sampson spent a good part of his time listing the characteristics of pseudoscientific alternative medicine advocates: their anti-scientific bias; their demand for absolute proof from science but only requiring sincere belief for their own claims; their failure to acknowledge their limitations; their claim that it is unethical to do control studies because they are then depriving control groups of help; their claim that they are persecuted by the medical Establishment (with a capital E); etc. Again, the general public is probably not too interested in these complaints and is unlikely to feel much sympathy for a medical doctor complaining about others not acknowledging their limitations. Too many M.D.s think the letters stand for Medical Divinity.

Another feature of Dr. Sampson's talk was a run through a number of "medical myths." Most of these, he claims, originated with or are perpetuated by pseudoscientific defenders of alternative medicine. For example, there is the myth that medical doctors are ignorant about nutrition. This is not true, he says. Nutrition is studied in biochemistry courses and many physicians work with nutritionists closely. Anyone who has had diabetes knows that this is true. Endocrinologists work very closely with nutritionists in establishing a healthy diet for the diabetic. My physicians have often given me information on nutrition. I have no idea how this myth got started, but I have heard the claim made more than once. In fact, this myth seems closely related to another one which Dr. Sampson did not mention, namely, the myth that medical doctors do not know or care anything about prevention of disease. This claim is preposterous on its face, but it is still very common. Who do we think is behind all those inoculation programs? Who developed the polio vaccine? Etc. Who recommends that we quit smoking? That we exercise and eat our fruits and vegetables? Who does the studies to determine exactly what, if any, effect all this good living has on our bodies? Medical scientists. Yet, a recent article in the *Journal of the American Medical Association* publicized a study by the Health Institute at the New England Medical Center in Boston which claims that while medical doctors do know more than anybody else about preventive medicine, they're keeping it a secret from us! A report on this article appeared in the *Sacramento Bee* (Nov. 5, 1997). The headline on the front page reads "Study: Few doctors pushing prevention." There is a nice blurb from a local internist, Dr. Robert Charm, who says: "Time is money. Doctors don't have enough time to spend with patients to practice that most important part of medicine we don't learn in medical school--prevention." Well, Dr. Charm should have learned about prevention in medical school and if he didn't he wasn't paying attention. Why did he think they had him practice giving shots? Where was he when there was a discussion in biochemistry about how carbohydrates are turned into sugars and what effect this has on the body? The article also quoted an 80-year-old retired nurse, Alice Roche, who claimed that she lost a leg to amputation because her doctor did not warn her that her cholesterol level was "dangerously high until it was too late." She says her doctor should have told her not to eat hard-boiled eggs and cheese sandwiches, her favorite meals. The *Bee* reporter, Dorsey Griffith, lets these

claims pass without comment. No mention is made that changing her diet may have had no effect on her cholesterol. No mention is made that the blood clots the woman suffered were probably not due to her cholesterol level and that the woman may well have lost her legs if she had not eaten any eggs or cheese and had a "normal" cholesterol level. No mention was made as to whether Ms. Roche smoked, was obese, exercised regularly, abused alcohol, was diabetic or had a family history of circulatory problems. The reader was left to assume that this poor woman lost her leg because her doctor didn't give her instructions in preventive medicine. With journalists like Griffith on the loose, Dr. Sampson has his work cut out for him in his quest to correct some of the myths about medicine and medical doctors. Who does Griffith or Dr. Charm think did the studies on health and obesity, alcohol abuse and smoking? Homeopaths? Acupuncturists? Naturopaths? I don't think so. (Perhaps Dr. Charm should have attended the symposium on prevention of age-related diseases at UC Davis, held this week. It was not sponsored by alternative health advocates but by scientists at UC Davis's Center for Environmental Health Sciences.)

When the mass media is overpopulated with reporters who lack the education and knowledge needed to ask the right questions, is it any wonder why the general public often believes what is false or questionable regarding scientific matters? Another example of media incompetence I've witnessed recently was when a "reporter" for MSNBC was interviewing the research director of a company which sells herbal remedies. During the question and answer period, someone asked whether it was likely that many of the so-called cures due to herbal remedies weren't just due to [the placebo effect](#). The research director replied that no, that couldn't be the case because "that's illegal." She elaborated by noting that her company never puts placebos in its products. The interviewer demonstrated that she, too, had no idea what the placebo effect is, by nodding her head and *not* saying, "I think our caller wants to know whether the effects of herbal remedies are due to the beliefs of the users rather than to the herbs."

Related to the myth that medical doctors know little about nutrition or prevention of disease is the notion that they are against taking vitamins. Dr. Wallace pointed out that scientists are the ones who study vitamins and the diseases caused by lack of proper mineral or vitamin intake. Yet, because medical doctors do not blindly advise patients to take megadoses of vitamins, they are criticized. Vitamin and mineral supplements are no substitute for good nutrition. And there is no evidence that people who eat well need or can benefit from megadoses of vitamins and minerals. People who take supplements do not live longer than people who don't. The attitude of the medical profession towards vitamins and minerals is appropriate. The fact that a person who is taking vitamin supplements *feels great* is irrelevant to whether those supplements are needed by that person's body. Because of the placebo effect, a person might believe they have more energy and are thinking more clearly or are stronger, etc. But for anyone to recommend taking megavitamins because of the potential placebo effect would not be morally

right, even if naturopaths consider it good medicine because it produces patient satisfaction.

Another myth perpetuated by defenders of alternative health practices is that 90% of all conventional medical practices and treatments have not been tested. This claim is based upon a study published in Britain in 1948. Dr. Sampson asserts that the study is wrong and that over 90% of today's treatments have reasonable proof of their effectiveness. He did not say on what he based this claim; however, I think it is interesting to view this claim that most medical treatments are untested in light of a common criticism made by defenders of alternative therapies, namely, that it costs too much to do all the testing which the FDA and other demanding scientists require before they approve of a drug or treatment. The scientific testing of new drugs is very rigorous. The likelihood that most surgical techniques are untested is about zero. So, the claim that most medical treatments are untested seem false on its face.

Dr. Sampson also listed as another myth the claim that medical doctors ignore "mind" and deal only with the body in an impersonal way. I think he should have just admitted that unfortunately this is true for too many doctors. However, it does not follow from the fact that many physicians are indifferent to their patient's "mind" or "soul" that someone who is concerned about their "soul" is necessarily going to know how best to treat their body. Being metaphysically compatible with one's doctor may be a luxury most of us will have to do without if we are mainly concerned with good medical treatment. I for one would prefer a competent, knowledgeable physician to a loving, caring incompetent spiritwalker who hallucinates during surgery. Dr. Sampson refuted this myth by noting that standard medical training involves instruction in psychosomatic disorders. This is true, but I doubt if that is what the critics had in mind. What attracts people to Andrew Weil and Deepak Chopra is their inclusion of metaphysical entities, not their belief that some physical problems are "in your head." In fact, one gripe many people have with standard medicine is that if a physical cause for a problem can't be found, the patient is told that the problem is "in their mind."

Dr. Sampson discussed several other myths, but one thing he did not discuss is the claim that alternative practitioners are attacked by the medical Establishment because of the economic competition. This attack on the motives of physicians is an ad hominem attack but a very successful one and difficult to defend against. I think that when this criticism comes up I would just note that attacking a person's motives rather than his or her arguments is an ad hominem fallacy and it would be preferable to hear a response to the criticisms made of alternative medicine. On the other hand, we all know how enjoyable an ad hominem can be, especially when they are aimed at unorthodox gurus who take their vegetarian dogs to holistic, non-conventional veterinarians who give unorthodox treatments such as therapeutic touch for the pet in an unconventional setting based upon Eastern principles of energy and life forces hovering in the shadows of pyramids.

Allan Dundes: "The Psychological Approach to Legends and Other Forms of Contemporary Folklore"

[Dr. Dundes is professor of anthropology and folklore at UC Berkeley and the [author of many books on folklore.](#)]

Professor Dundes focused on folk legends (he dislikes the expression "urban" legends because they are not restricted to urbania). These are stories which are set in the real world and are told as if they are true. The folk legends are not true but they do reveal our true fears, prejudices, taboos and anxieties. Why do so many people believe stories like the Nieman Marcus cookie recipe story, the poodle in the microwave story or the secretary's coffee tray in the computer story? He didn't say or even offer a theory as to why there is so little skepticism about such stories. I think the answer has something to do with [selective perception](#), but folk legends are beyond my scope of interest.

Fritz Stevens

Mr. Stevens is the executive director of Center for Inquiry-West, Los Angeles, funded by CSICOP. He joined in a panel discussion and commented on the media's role in perpetuating junk science and pseudoscience. He praised the film *Contact* as a hopeful sign and compared it favorably to Stanley Kubrick's *2001*. (In my view, there is no comparison as a film or as a story. Arthur C. Clarke and Stanley Kubrick are light years ahead of Sagan's story.) Mr. Stevens made one comment I found most interesting. Contrary to what many of us think, Hollywood junk science is not made just to satisfy a hungry audience who craves such stuff. Rather, in Mr. Stevens' view, the movies reflect the very real interests and beliefs of those who make them. I must say that Mr. Stevens was rather convincing.

Mr. Stevens also promoted the *Skeptical Inquirer* and had for sale several copies of the September/October 1997 issue which is devoted to Alternative Medicine in a Scientific World and includes articles by Wallace Sampson, Robert Park ("[Alternative Medicine and the Laws of Physics](#)") and Barry Beyerstein ("[Why Bogus Therapies Seem to Work](#)").

The Audience

One man announced that "all the great scientists have been mystics." This is false, of course. Some have been: Newton, Boyle and Kepler, for example, were certainly very spiritual, even if one quibbles about whether they were mystics. But this man used Einstein as his paradigm of the mystical scientist. "God does not play dice," said Einstein. True. Einstein said it and New Age mystics and other spiritualists love to cite this passage as evidence of Einstein's spirituality. The truth is that Einstein wrote to Max Born on December 12, 1926, and said:

Quantum mechanics is certainly imposing. But an inner voice tells me that it is not yet the real thing. The theory says a lot, but does not really bring us any closer to the secret of the Old One. I, at any rate, am convinced that He does not throw dice.

What did he mean? Years later he wrote to James Frank:

I can, if the worst comes to the worse, still realize that the Good Lord may have created a world in which there are no natural laws. In short, a chaos. But that there should be statistical laws with definite solutions, i.e., laws which compel the good Lord to throw the dice in each individual case, I find highly disagreeable.

His point, in both cases, does not seem to be spiritual, but rather has to do with his reluctance to accept quantum mechanics. The fundamental laws of physical reality should not be couched in terms of statistical probabilities. Einstein did not waver in his reluctance to accept quantum mechanics. In 1937, he wrote to Herbert Samuel:

It is therefore an uncritical attitude to declare the statistical character of nature to be a fact. It may only be excused by the fact that up to now we do not have any other theory.

Thus, rather than relish Einstein's comments about God playing dice with the world, New Agers should cringe, since one of their favorite misconceptions is Quantum Mechanics, which many New Agers take to be a blank check allowing them to claim that since nothing is certain and all is energy, anything goes. Einstein didn't like Quantum Mechanics and he certainly didn't think that quantum mechanics was a gateway to the mind of God. Far from it.

What did Einstein believe about God, then? In 1929 he wrote to a rabbi that he believed "in Spinoza's God who reveals himself in the harmony of all that exists, not in a God who concerns himself with the fate and actions of men." Spinoza was excommunicated from the synagogue in Amsterdam for his belief in such a God, i.e., in identifying Nature with God and both with

Everything.

I have no problem with calling both Einstein and Spinoza mystics. They identified God with the Cosmos and found it comfortable to talk about becoming one with God by knowing more and more about the Cosmos. But it would be foolish to look in any of Einstein's scientific papers for appeals to God, to intuitions, to mystical visions or insights, to voices heard in the night or to channeled books from Cro-Magnon warriors or Atlantean demi-gods. When he argued *as* a scientist, he argued *like* a scientist.

In conclusion, this debate about mystics and science is a diversion from the real question: are science and spirituality irreconcilable? The answer is, of course not. But it does not follow from that fact that there are no boundaries which separate the two. There are. Some spiritual claims are irreconcilable with some scientific claims. It does not follow that both require equal acts of faith. It may be the case that I cannot prove with absolute certainty that I will die if I jump from an airplane at 30,000 feet without a parachute, but it is not an act of faith which keeps me from jumping. Or, if it is, the faith I would need to jump would be infinitely greater than the faith I would need to stay in my seat. The faith needed to believe in stories like that of Adam and Eve or Noah's Ark is much greater than the "faith" needed to believe in evolution. The faith needed to disregard your intellect and rational powers in order to believe something on authority is exceedingly greater than the "faith" needed to use your intellect and rational powers to evaluate information, arguments and the claims of authorities.

"The dice of God are always loaded."

Ralph Waldo Emerson

R. T. Carroll, November 7, 1997

further reading

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cellular memory

"The idea that transplanting organs transfers the coding of life experiences is unimaginable."

--Dr. John Schroeder, Stanford Medical Center

Cellular memory is the speculative notion that human body cells contain clues to our personalities, tastes and histories, independently of either genetic codes or brain cells. Perhaps the idea for this nonsense began with films such as [Brian's Song](#). In that film, the 26-year old Piccolo (played by James Caan) is dying of cancer when Gayle Sayers (played by Billy Dee Williams), his friend and Chicago Bears teammate, visits him in the hospital. Piccolo had been given a transfusion and he asks Sayers if he had donated any blood. When Sayers says yes, Piccolo remarks that that explains his craving for chitlins.

Or perhaps the idea originated with L. Ron Hubbard. In [Dianetics](#), he speculated that cellular memory might explain how engrams work.

Maybe the idea came from *Les Mains d'Orlac* by Maurice Renard (1875-1939), a story of a concert pianist who loses his hands in an accident and is given the hands of a murderer in a transplant operation. Suddenly, the pianist has an urge to kill. Several variations of Renard's story have made it into film, including [Orlacs Hände](#), a 1935 silent Austrian film, [Mad Love](#) (1935), [Les Mains D'Orlac](#) (1960), and [Hands of a Stranger](#) (1962). A similar story is told by Pierre Boileau and Thomas Narcejac (authors of *Vertigo*) in *et mon tout est un homme* (1965), which was made into the film [Body Parts](#) in 1991. A prison psychiatrist loses an arm in an accident and is given the arm of an executed psycho-killer. The arm then develops a mind of its own.

More recently, Claire Sylvia, a heart-lung transplant recipient, explained her sudden craving for beer by noting that her donor was an 18-year old male who died in a motorcycle accident. She's even written a book about it, which will soon be made into a movie starring Sally Field. Paul Pearsall, a psychologist and author of *The Pleasure Principle*, also casts his vote for the theory of cellular memory and transfer. Pearsall goes much further in his speculations, however, claiming that "the heart has a coded subtle knowledge connecting us to everything and everyone around us. That aggregate knowledge is our spirit and soul. . . .The heart is a sentient, thinking, feeling, communicating organ." How he knows this is anybody's guess. It may have been channeled to him from aliens or wise persons from the East. Or perhaps he has been reading the fiction of Edna Buchanan, who asks: "What if the soul is contained in DNA? What if DNA is contained in the soul?"

Sylvia Browne teaches a course for an alternative education program in

Sacramento entitled *Healing Your Body, Mind & Soul*. In one two-hour session Ms. Browne will teach anyone "how to directly access the genetic code within each cell, manipulate that code and reprogram the body to a state of normalcy." Despite the preposterous nature of her claims, the course sold out.

And what if you eat too much chicken? Might you grow a beak, start clucking uncontrollably, and develop a craving for seeds? Are those squealing and mooing sounds you hear in the night your diabetic neighbors who are using porcine and bovine insulin? Pity the poor child who received a baboon's heart.

See related entry on [sympathetic magic](#).

further reading

[reader comments](#)

["Do Cells Remember?" by Pam Janis](#)

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full moon and lunar effects

The full moon has been linked to crime, suicide, mental illness, disasters, accidents, birthrates, fertility, and werewolves, among other things. Some people even [buy and sell stocks according to phases of the moon](#), a method probably as successful as many others. Numerous studies have tried to find lunar effects. So far, the studies have failed to establish anything of interest, except that the idea of the full moon definitely sends some lunatics (after *luna*, the Latin word for moon) over the edge. (Lunar effects that have been found have little or nothing to do with human behavior, e.g., the discovery of a slight effect of the moon on global temperature,* which in turn might have an effect on the growth of plants.*)



[Ivan Kelly](#), [James Rotton](#) and [Roger Culver](#) examined over 100 studies on lunar effects and concluded that the studies have failed to show a reliable and significant correlation (i.e., one not likely due to chance) between the full moon, or any other phase of the moon, and each of the following:

- the homicide rate
- traffic accidents
- crisis calls to police or fire stations
- domestic violence
- births of babies
- suicide
- major disasters
- casino payout rates
- assassinations
- kidnappings
- aggression by professional hockey players
- violence in prisons
- psychiatric admissions
- agitated behavior by nursing home residents
- assaults
- gunshot wounds
- stabblings
- [emergency room admissions](#)
- behavioral outbursts of psychologically challenged rural adults
- [lycanthropy](#)
- [vampirism](#)
- alcoholism
- sleep walking

-epilepsy

If so many studies have failed to prove a significant correlation between the full moon and anything, why do so many people believe in these lunar myths? Kelly, Rotton, and Culver suspect four factors: media effects, folklore and tradition, misconceptions, and cognitive biases. I would add a fifth factor: [communal reinforcement](#).

the media perpetuates lunar myths

Kelly, et al., note that lunar myths are frequently presented in films and works of fiction. "With the constant media repetition of an association between the full moon and human behavior it is not surprising that such beliefs are widespread in the general public," they say. Reporters also "favor those who claim that the full moon influences behavior." It wouldn't be much of a story if the moon was full and nothing happened, they note. Anecdotal evidence for lunar effects is not hard to find and reporters lap it up, even though such evidence is unreliable for establishing significant correlations. Relying on personal experience ignores the possibility of [self-deception](#) and [confirmation bias](#). Such evidence may be unreliable, but it is nonetheless persuasive to the uncritical mind.

folklore and tradition

Many lunar myths are rooted in folklore. For example, an ancient Assyrian/Babylonian fragment stated that "A woman is fertile according to the moon." Such notions have been turned into widespread misconceptions about fertility and birthrates. For example, [Eugen Jonas](#), a Slovakian psychiatrist, was inspired by this bit of folklore to create a method of birth control and fertility largely rooted in astrological superstitions. The belief that there are more births during a full moon persists today among many educated people. Scientific studies, however, have failed to find any significant correlation between the full moon and number of births (See "Lunar phase and birth rate: A fifty-year critical review," by R. Martens, I. Kelly, and D. H. Saklofske, *Psychological Reports*, 1988, 63, 923-934, "Lunar phase and birthrate: An update," by I. Kelly and R. Martens, *Psychological Reports*, 1994, 75, 507-511). In 1991, Benski and Gerin reported that they had analyzed birthdays of 4,256 babies born in a clinic in France and "found them equally distributed throughout the [synodic](#) (phase) lunar cycle" (Kelly, et al. 1996, 19). In 1994, Italian researchers Periti and Biagiotti reported on their study of 7,842 spontaneous deliveries over a 5-year period at a clinic in Florence. They found "no relationship between moon phase and number of spontaneous deliveries" (Kelly, et al. 1996, 19).

Despite the fact that there is no evidence of a significant correlation between phases of the moon and fertility, some people not only maintain that there is, they have a "scientific" explanation for the non-existent correlation.

According to "Angela" of AstraConceptions at fertilityrhythms.com,

...photic (light) signals sent by the lens and retina of the eyes are converted into hormone signals by the pineal gland. It is the pineal gland which signals the onset of puberty in humans and plays a part in the fertility rhythms of all species.

In animals which reproduce seasonally, it is the changing light patterns which trigger the fertility cycle. The gradual change in both the length of day and the changing angle of the sun in the sky (caused by earth's motion) is interpreted by the pineal gland as a signal to commence the fertility season.

Of course, humans do not reproduce seasonally. Our fertility cycles exhibit an obvious monthly rhythm. The light source which has a monthly periodicity is, of course, the Moon.

It is interesting to note that menstruation is actually a shedding process. Just as the average menstrual cycle is 28 days in length, the human body sheds a layer of skin approximately every 28 days.

Yes, that is very interesting to note...if you are interested in [sympathetic magic](#). (The author also finds it noteworthy that animals which reproduce seasonally also shed their coats seasonally.) The author continues

...it is not only the changing day length but also the changing angular position of the sun which triggers this process; the pineal gland receives photic (light) impressions and converts these into hormonal messages which signal the onset of these cycles.

With humans the cycles of fertility (and shedding) are triggered by photic impressions as well. Yet our cycles have a monthly periodicity which is obviously synchronized with fluctuations of the lunar light.

Obviously. However, the light of the moon is a very minor source of light in most women's lives, and is no more likely than the moon's gravitational force to have a significant effect upon a woman's ovulation. Furthermore, the average menstrual cycle is 28 days but varies from woman to woman and month to month, while the length of the lunar month is a consistent 29.53 days.* Some of us have noticed that these cycles are not identical.

Furthermore, it would seem odd that natural selection would favor a method

of reproduction for a species like ours that depended on the weather. Clouds are bound to be irregularly and frequently blocking moonlight, which would seem to hinder rather than enhance our species' chance for survival.

Some mythmakers believe that long ago women all bled in sync with the moon, but civilization and indoor electric lighting (or even the discovery of *fire* by primitive humans) has messed up their rhythmic cycle. This theory may seem plausible until one remembers that there are quite a few other mammals on the planet which have not been affected by firelight or civilization's indoor lighting and whose cycles aren't in harmony with the moon. In short, given the large number of types of mammals on our planet, one would expect that by chance some species' estrus and menstrual cycles would harmonize with lunar cycles (e.g., the lemur). It is doubtful that there is anything of metaphysical significance in this.

What we do know is that there has been very little research on hormonal or neurochemical changes during lunar phases. James Rotton's search of the literature "failed to uncover any studies linking lunar cycles to substances that have been implicated as possible correlates of stress and aggression (e.g., serotonin, melatonin, epinephrine, norepinephrine, testosterone, cortisol, vasopressin [directly relevant to fluid content], growth hormone, pH, 17-OHCS, adrenocrotropic hormone)."^{*} One would think that this area would be well-studied, since hormones and neurochemicals are known to affect menstruation and behavior.

misconceptions

Kelly et al. note that misconceptions about such things as the moon's effect on tides have contributed to lunar mythology. Many people seem to think that since the moon affects the ocean's tides, it must be so powerful that it affects the human body as well. It is actually a very weak tidal force. A mother holding her child "will exert 12 million times as much tidal force on her child as the moon" (Kelly et al., 1996, 25). Astronomer George O. Abell claims that the moon's gravitational pull is less than that of a mosquito (Abell 1979). Despite these physical facts, there is still widespread belief that the moon can cause earthquakes. It doesn't; nor does the sun, which exerts much less tidal force on the earth than the moon.^{*}

The fact that the human body is mostly water largely contributes to the notion that the moon should have a powerful effect upon the human body and therefore an effect upon behavior. It is claimed by many that the earth and the human body both are 80% water. This is false. Eighty percent of the *surface* of the earth is water. Furthermore, the moon only affects *unbounded* bodies of water, while the water in the human body is bounded.

Also, the tidal force of the moon on the earth depends on its distance from earth, not its phase. Whereas the [synodic period](#) is 29.53 days, it takes [27.5](#)

[days](#) for the moon to move in its elliptical orbit from perigee to perigee (or apogee to apogee). Perigee (when the moon is closest to earth) "can occur at any phase of the synodic cycle" (Kelly et al. 1990, 989). Higher tides do occur at new and full moons, but not because the moon's gravitational pull is stronger at those times. Rather, the tides are higher then because "the sun, earth, and moon are in a line and the tidal force of the sun *joins that of the moon* at those times to produce higher tides" (Kelly et al. 1990, 989).

Many of the misconceptions about the moon's gravitational effect on the tides, as well as several other lunar misconceptions, seem to have been generated by Arnold Lieber in *The Lunar Effect* (1978), republished in 1996 as [How the Moon Affects You](#). Lieber incorrectly predicted a catastrophic earthquake would hit California in 1982 due to the coincidental alignment of the moon and planets.

cognitive biases and communal reinforcement

Finally, many believe in lunar myths because they have heard them repeated many times by members of the mass media, by police officers, nurses, doctors, social workers, and other people with influence. Once many people believe something and enjoy a significant amount of [communal reinforcement](#), they get very [selective](#) about the type of data they pay attention to in the future. If one believes that during a full moon there is an increase in accidents, one will notice when accidents occur during a full moon, but be inattentive to the moon when accidents occur at other times. If something strange happens and there is a full moon at the time, a causal connection will be assumed. If something strange happens and there is no full moon, no connection is made, but the event is not seen as counterevidence to the belief in full moon causality. Memories get selective, and perhaps even distorted, to favor a full moon hypothesis. A tendency to do this over time strengthens one's belief in the relationship between the full moon and a host of unrelated effects.

the moon, madness and suicide

Probably the most widely believed myth about the full moon is that it is associated with madness. However, in examining over 100 studies, Kelly, Rotton and Culver found that "phases of the moon accounted for no more than 3/100 of 1 percent of the variability in activities usually termed *lunacy*" (1996, 18). According to James Rotton, "such a small percentage is too close to zero to be of any theoretical, practical, or statistical interest or significance."[*](#)

Finally, the notion that there is a lunar influence on suicide is also unsubstantiated. Martin, Kelly and Saklofske reviewed numerous studies done over nearly three decades and found no significant association between phases of the moon and suicide deaths, attempted suicides, or suicide threats. In

1997, Gutiérrez-García and Tusell studied 897 suicide deaths in Madrid and found "no significant relationship between the synodic cycle and the suicide rate" (1997, 248). These studies, like others which have failed to find anything interesting happening during the full moon, have gone largely, but not completely*, unreported in the press.

update Feb 1, 2000: According to Allan Hall of the [*Sunday-Times*](#), German researchers Hans-Joachim Mittmeyer of the University of Tübingen and Norbert Filipp from the Health Institute of Reutlingen claim that "a study of police reports for 50 new and full Moon cycles" shows that the moon is "responsible for binge drinking."

According to Hall, Mittmeyer and Filipp claim in their paper "Alcohol Consumption and the Moon's Influence" to have studied police arrest reports and blood-alcohol tests of 16,495 people and Mittmeyer said "The results show there is a definite correlation between new and full Moons and the amount of alcohol consumed."

Hall writes:

More of those with an excess of 2ml of alcohol per 100ml of blood inside them - drunk, according to German law - were caught by police during the five-day full Moon cycle.

On average 175 drink[sic]-drivers per day were caught in two German states two days before a full Moon, 161 were caught during the full Moon cycle and the figure dropped to about 120 per day at other times.

This very unclear statement has to be interpreted. I took it to mean that an average of 175 drunk drivers were caught each day on days one and two of the five-day cycle. Thus, if the average for the whole five-day cycle was only 161, there were substantially fewer drunk drivers caught on the night of the full moon. Thus, it appeared to me that the researchers were not able to correlate the full moon with an increase in arrests, so they created 'the full moon cycle', a five day period, which gave them the statistical correlations they were looking for.

Apparently, however, I was wrong in my interpretation of Hall's meaning and Hall erred in his reading of a report from the German Press Agency DPA which erred in its reading of the original paper which erred in its interpretation of the data.

Jan Willem Nienhuys, a mathematician in the Eindhoven (Netherlands) University of Technology, claims that "Hall's story is a garbled version of

a story by the German Press Agency DPA." According to Nienhuys, *Hall* invented the notion of a five-day full Moon cycle; the expression is not used by Mittmeyer and Filipp in their paper. Furthermore, 668 of the 16,495 arrested and tested were found to be sober, leaving 15,827 with alcohol in their blood, but only 4,512 with more than 0.2 percent blood alcohol (i.e., drunk).

According to Nienhuys, the 161 figure refers to the average number of drunk drivers arrested on any given date in the lunar month; he believes this number was arrived at by dividing 4,512 by 28 (rather than 29.53, the length of a lunar month) and hence should be 153, not 161. About the only thing Hall got right, says Nienhuys, is that Mittmeyer and Filipp do claim to have found a significant correlation between the moon and excessive drinking. He notes that the pair provide graphs but no statistical analysis of their data. When such an analysis is done, says Nienhuys, one discovers that the study is "pompous pseudoscience." According to Nienhuys, a standard statistical test yields p-values which show that there is nothing to investigate.

Here is the data, according to Nienhuys. Day 0 is the day of the new moon and day 14 is the full moon.

day	drunks	drinkers, including drunks
0	145	551
1	160	528
2	162	552
3	122	527
4	162	538
5	157	531
6	156	504
7	158	560
8	140	523
9	152	540
10	150	552
11	146	477
12	173	563
13	150	545
14	150	523
15	149	498
16	145	543
17	142	539
18	143	507
19	119	508
20	157	532
21	163	552
22	156	513
23	148	530
24	154	528

25	158	536
26	175	582
27	176	581
28	169	590

 4437 15553
 missing 75 274

 4512 15827

The three big days were the 12th, 26th and 27th. You figure it out!

(Nienhuys article, entitled "Triply garbled tripe" is being prepared for publication. He was kind enough to send me a pre-publication copy of the paper.)

See **related entries** on [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), and [subjective validation](#).

further reading

[reader comments](#)

- [moon phases](#) check out today's phase
- [Moonstruck! Does The Full Moon Influence Behavior?](#) by [Eric Chudler](#)
- [lunar cycles](#)
- James Rotton's review of Arnold Lieber's [How the Moon Affects You](#)
- [full moon fun](#) Urban Legends
- [LunarColony.com](#)
- [Menstrual Cycles: What Really Happens in those 28 Days?!](#) from the Feminist Women's Health Center
- [What's the link between the moon and menstruation?](#) Cecil Adams, *The Straight Dope*

[Abell, George. "The Alleged Lunar Effect" in *Science Confronts the Paranormal*, edited by Kendrick Frazier. \(Buffalo, N.Y.: Prometheus Books, 1986\).](#) Abel provides a very critical review of psychiatrist Arnold L. Lieber's

The Lunar Effect: Biological Tides and Human Emotions.

Abell, George O. "The moon and the birthrate," *Skeptical Inquirer*, Summer 1979, vol. 3, no. 4.

[Hines, Terence. *Pseudoscience and the Paranormal* \(Buffalo, NY: Prometheus Books, 1990\).](#)

Byrnes, Gail and I.W. Kelly. "Crisis Calls and Lunar Cycles: A Twenty-Year Review," *Psychological Reports*, 1992, 71, 779-785.

Gutiérrez-García, J. M. and F. Tusell. "Suicides and the Lunar Cycle," *Psychological Reports*, 1997, 80, 243-250.

[Jamison, Kay R. *Night Falls Fast: Understanding Suicide* \(Knopf, 1999\).](#)

Kelly, I. W., W. H. Laverty, and D. H. Saklofske. "Geophysical variables and behavior: LXIV. An empirical investigation of the relationship between worldwide automobile traffic disasters and lunar cycles: No Relationship," *Psychological Reports*, 1990, 67, 987-994.

Kelly, I. and R. Martens. "Lunar phase and birthrate: An update," *Psychological Reports*, 75, 507-511.

Kelly, I.W., James Rotton, and Roger Culver. "The Moon was Full and Nothing Happened: A Review of Studies on the Moon and Human Behavior and Human Belief," in J. Nickell, B. Karr and T. Genoni, eds., [*The Outer Edge*](#) (Amherst, N.Y.: CSICOP, 1996). This is an updated version of an article which originally appeared in the *Skeptical Inquirer* Winter 1985-86 (vol. 10, no. 2) and was reprinted in [*The Hundredth Monkey and Other Paradigms of the Paranormal*, edited by Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\), pp. 222-234.](#)

Martens R., I. Kelly, and D. H. Saklofske. "Lunar phase and birth rate: A fifty-year critical review," *Psychological Reports*, 63, 923-934.

Martin, S.J., I.W. Kelly and D.H. Saklofske. "Suicide and Lunar Cycles: A Critical Review over 28 Years," *Psychological Reports*, 1992, 71, 787-795.

Rotton, James. "Moonshine," *Skeptical Inquirer*, May/June 1997.



Search the Skeptic's Dictionary



reader comments:

alternative health practices

4 Sep 2000

I was just looking at your interesting web site, "Skeptics Dictionary". While it is of course beneficial to scrutinize every new idea; and while real scientists never publish anything until they are certain, with many hard reproducible facts; still we have to remain always open-minded to new possibilities, or else all progress would stop.

With those caveats in mind, there are two things in general I noticed about your web site, which you might wish to address.

reply: Let me guess. I'm not a real scientist and I'm not open-minded.

First, in the field of alternative medicine, it should be noted that our current choice of medical therapies and drugs is not purely scientific, but based partly on the profit motives of large multinational corporations, as well as certain medical organizations. One only has to do research in modern biology for a very short time, to reach that conclusion.

reply: I see. And all those in alternative medicine, including those who produce the products they sell and promote, are *not* partly motivated by profit? What's the point. Who cares if anybody is partly motivated by profit? Why do you think the big pharmaceutical firms are pumping out alternative remedies as fast as they can label them? It's a multi-billion dollar a year business. You don't have to do research in biology to know these things.

Indeed, certain accepted medical practices today are quite inefficient and harmful, and could immediately (or soon) be replaced by "alternative safe treatments", were it not for vested interests.

For example, one group here and others worldwide have found a safe, efficient way to test for prostate cancer, which would eliminate perhaps 2 / 3 of urological surgery, which causes pain and misery to millions of older men. But there is a large vested interest in continuing such surgery, and progress is slow. Similarly with surgery and chemo for breast cancer in women, which after 20 years of unneeded pain has shown no beneficial value in controlled studies.

reply: So? What makes you think I agree with current medical practices regarding prostate testing and treatment?

In terms of pharmaceuticals, if a US patent cannot be obtained on any kind of medicine, the big drug companies will never test it formally, and patients will never receive it except from alternative doctors.

reply: This is nonsense. Big drug companies are now testing traditional herbs and remedies as they sell them. Read this [article](#) from US Business reporter. It is because of the profit motive that the large pharmaceuticals are jumping on the alternative bandwagon. It is partly the profit motive that is driving many traditional physicians and hospitals to offer "alternative" or "complementary" care. Do you think they are doing this because they have evidence such things as [therapeutic touch](#) have been validated by scientific studies? I don't.

For example, [vitamin C](#) and [echinacea](#) have been very valuable to people's health, yet there is a vested interest in other cold-flu remedies. Personally I take those two, plus [glucosamine](#) for soft-tissue repair (a common animal drug), and [melatonin](#) occasionally for stress relief. Those and other alternative products, to my mind, work beyond any shadow of a doubt; and indeed there are new scientific tests which would prove such in a large-scale trial, yet funding has to come from large drug companies: qui custodies custodiere?

reply: Thanks for the free medical advice, but not everybody agrees with your assessment of [vitamin C](#). (update: Oct 11, 2001, a new study from Australia [*Medical Journal of Australia* 2001; 175:359-362] finds [vitamin C worthless in preventing colds](#).) Furthermore, as long as there is scientific testing of the substances you mention, they are not "alternative" remedies. Many folk remedies turn out to have some merit, but until scientific testing is done, to recommend them is "alternative."

Meanwhile other dangerous drugs (e.g. warfarin-coumarin for blood thinning, pain killers for back pain) are given routinely, often with 3-5% lethal side effects due to bleeding or long-term use (my father nearly died last year from an aneurysm caused by warfarin).

reply: So? What's your point? Do you expect medical science to be infallible? Do you expect me to evaluate every questionable medical practice as a matter of fairness and completeness? Some medical practices may be stupid and unjustified, but unless they make claims based on metaphysics or occult assumptions, they are outside the purview of my stated purpose and interest.

In summary, as a first point, your web site does not seem to reflect accurately the current situation in medical research, that professionals see every day.

There is no reason a priori to think that an "alternative cure" will be bad, while an "accepted cure" will be good. Every situation or therapy has to be judged on its own merits, as to how well it produces results without ill effect.

reply: I agree, but there is no reason my website should reflect the current situation in medical practice.

As a second brief point, I do not seem to see the same rigorous skepticism on your web site, when applied to "conventional" scientific theories as to "paranormal" ones. For example, as someone knowledgeable in the area, I would tend to believe in at least some paranormal phenomena, when compared to the "Big Bang" theory of cosmology or the "quark-gluon" theory of particle physics. If you are not familiar with such academic theories, or say with "renormalization" in QED, or "Lorentz covariance" in relativity, I advise you to investigate those well-accepted subjects further, in order to find additional evidence for poorly-supported group beliefs, which can add to the substance of your dictionary and make it more complete.

reply: I have not set out to be critical of "theories" or "medicine". I have set out to offer skeptical arguments and references to occult, supernatural, paranormal and pseudoscientific notions. Whenever a traditional medical treatment or theory is based on paranormal or metaphysical claims, I will be the first to rip into it. If you want a website that offers skeptical analyses of scientific theories and inferences from empirical data, you should start your own. That is not what I want to do. I have no idea why you think I should want to do this, except that you do not like the fact that I criticize "alternative", i.e., unscientific and pseudoscientific, thinking.

To conclude, as a second point: logical skepticism is fine, but it should be applied objectively to conventional peer-reviewed science, as well as that which appears less secure. Lack of research is no excuse, because I am sure you must have researched carefully all of the other subjects in your dictionary, before posting such severe criticisms!

reply: Get off your horse and get a life.

The motto of any true scientist is "nullia in verba": not to take anyone's word for it, no matter how authoritative they appear. Or alternatively, "there is no error which has not had its Professors." --John Locke, 1690.

Horace Drew, a professional scientist

reply: You're right about one thing, anyway.

02 Aug 1999

Perhaps it's not worth the effort, but an entry on the basic fallacy of the

"doctors and pharmaceutical companies are conspiring to keep my miracle cure off the market" bull that we hear all the time might be an idea.

1. Doctors and their families get cancer, low back pain, go bald, etc. at the same rate as everyone else. 2. So do pharmaceutical company employees and their families. 3. Both pay the same insurance rates as everyone else. 4. Both like to save money, same as everyone else. 5. Nobody gets issued a magic talisman to protect them from exposures to HIV, Hepatitis C, or any other hazards.

I know it seems obvious, but my conversations with people indicate that no one ever thinks thinks about such things.

Cheryl Hoffman

14 Aug 1999

I'm skeptical of your skepticism! On pseudosciences you failed to mention modern medicine. Correctly prescribed medicine is the 4th leading killer in America. Ok, homeopathy might seem like quackery to you, but how about some balance buddy? Spend some time being skeptical about what is in front of you. Are you paid by the American Medical Association?

Jahmbo

reply: Unfortunately, I'm not paid by anybody. The misleading statistic you mention has been irresponsibly passed on by the mass media. My comments on it may be found at: [Mass media bunk](#)

22 Apr 1998

Last night I heard about a new alternative treatment (or, as I call it, voodoo) that sounds like something for the Dictionary (of which I've been a follower for months).

My sister-in-law has a bone marrow disease called ITP [[Immune Thrombocytopenic Purpura is an autoimmune disorder](#)]. She is also obsessed with being thin, even though she's a rail already. Her traditional doctor prescribed cortisone, I believe, [corticosteroids are part of the first line treatment of IPP] which would have the side effect of causing weight gain. Since that is not acceptable, she is going to an acupuncturist who has her using some wacky therapy at home three times a day. She takes some herbs which, I'm told, smell somewhat like pot, rolls them into a joint, lights it, but instead of smoking it, she -- get this -- points the lighted end at certain parts of her body. With a straight face, she says that pointing this stinky joint at her big toe (right or left is irrelevant) will directly affect her spleen. She also named other extremities that "rule" internal organs. The herb is called amoxi-something.

Sorry my details are sketchy but I had to walk away from her before I started screaming at her. Any of this ring a bell with you?

Please don't use my name if you publish.

reply: My source (David Ehrensperger, an aromatherapist--see next letter) tells me that your sister-in-law is being treated with ["moxibustion."](#) My Webster's dictionary tells me that "moxa" is an escharotic (a caustic which produces scabbing or crusting when applied to a wound or burn). In Japan, mogusa (moxa) is made from the yomigi plant. Here, leaves from mugwort (*Artemisia vulgaris*) or the wormwood tree (*Artemisia chinensis*) are usually used, according to [Jack Raso](#). According to Mr. Ehrensperger, moxibustionists *do* touch the body with moxa, and do not, as you described, point the burning mass at various body parts. (Maybe your sister's "therapist" is practicing [sympathetic magic](#).)

Moxibustion is often used in conjunction with [acupuncture](#), another swell treatment for serious diseases. The chance that burning herbs will harm your sister-in-law are slim, but they are not likely to help her condition, either.

17 Nov 1997

*I was fascinated and refreshed by **The Skeptic's Dictionary**. My parents-in-law use only alternative medicine to treat their two young children who have muscular dystrophy, a concept which scares and angers me. I have been excluded from the family because of my lack of belief in these treatments which do not give any proof of their ability to heal. It was great to be able to read some published information to back up what I have always believed to be true.*

Their latest cure is called 'Neuro-skeletal dynamics', which consists of touching pressure points on the back in order to send messages to the brain's map of the body, which will then restore the body to the condition in which it functions best. They also see another alternative therapist who claims to be able to control all of the body's functions through pressing the navel.

What I find fascinating about these alternative therapies is that they all contain just a pinch of medical or scientific fact which, to the uneducated, is enough to convince them of their validity. Alternative medicines uses phrases like "the body system" which sound sort-of medical or scientific but which is "fuzzy."

Anyway thanks for giving me some concrete information on a topic which I have always found really infuriating.

Kristin

reply: Many believers in "alternative" health care become so devoted to their various herbs and practices that the herbs and plants become like sacraments and the practices like rituals in a religion.

19 Nov 1997

You are completely correct when you say that it's like a religion. In fact my in-law's have replaced their religion with spiritual healers, which seems to go along with their belief in the alternative medicines.

What I find most annoying about the whole situation is that I am a professional in the disability service field and also have a strong medical background, so I can pick the differences between medical science and quackery. It is incredible frustrating to me to see two young children who are going to have a shortened lifespan anyway be denied the medical help that could at least help to make their time more comfortable.

I have come to the conclusion that this is their coping mechanism, and that they are desperately clinging to any glimmer or hope that they can find. Ultimately they are avoiding the issue but for now these beliefs are the 'band-aid' which is their temporary solution.

Kristin

note: the following is one of several I've received from someone who identifies himself only as Doc6262@aol.com. From what he's said in some of his notes, I think he's a chiropractor...at least that's the only kind of doctor he's had kind words for so far.

22 Jan 1997

How come there aren't more articles on the ill effects of traditional medicine?? I'm willing to bet that most people don't realize that a person dies every 8 minutes directly due to Medical physicians!

reply: It would have been nice if you had provided the source of this startling statistic.

Let's do a piece on "Prozac" for instance.....

reply: You might be happy to know that today's [Jan 23, 1997] newspaper has a story about Prozac: a new study has found no sign that taking Prozac during pregnancy can harm a woman's unborn child. Contact Dr. Gideon Koren of the University of Toronto for more information. Or read the latest issue of the *New England Journal of Medicine*, if you're truly interested. I imagine, however, you are referring to stories about people who kill while on Prozac. It is true that there have reports in the mass media about the dangers of Prozac. However, there have also been reports

in the mass media about the dangers of silicon breast implants. There is another side to these reports which rarely gets reported. For instance, the scientific studies done on the health of women with breast implants versus those without them does *not* support the claim that breast implants are a significant causal factor in female ill health. People have killed while on Prozac. People have killed while not on Prozac. Prozac is taken by over 12,000,000 people a year. The percentage who go berserk and kill is rather small, just as it is in the population which does not take Prozac. Plus, those who are given Prozac are sometimes severely disturbed before taking it. Those who go berserk may have done so had they not taken Prozac and visited their local chiropractor or naturopath instead. Would you blame chiropractic or naturopathy for the berserk behavior just because it occurred *after* a visit to a chiropractor or naturopath?

...or maybe about getting the wrong leg cut off during surgery,

reply: These types of malpractice are mentioned in the article on alternative medicine.

....or possibly the removal of tonsils (the immune system's first line of defense).

reply: Your point, I take it, is that traditional medicine has frequently advocated procedures or practices which not only did not improve health but made matters worse. You are correct.

I mean come on let's show the tragedies that are caused daily, by MD's who could care less about the patient and more about the disease!!!

Doc6262@aol.com

reply: That seems like a job for someone of your disposition. Just remember, should you ever need brain or bypass surgery, or insulin for your diabetes, your doctor may not be a chiropractor or naturopath and may not look kindly upon your slanders. She may turn you into a self-fulfilling prophecy.

Here is another missive from Doc6262:

January 31, 1997, page 1 of the USA Today quotes sources at the U.S. Center for Disease Control and Prevention stating "Nearly all cases of polio since 1980 were caused by the oral polio vaccine".

The oral vaccine contains a weakened polio virus intended to stimulate immunity without causing the disease.

reply: I suppose the good doctor takes this as further proof of medical murder. Actually, it demonstrates a rather common error many people make: statistics need a reference point or standard in order to understand

their significance. How many cases of polio would there have been had the polio vaccine not been used?

9 Feb 1997

I think the only fair way to test the validity of "scientific" medicine is with double blind studies. Your use of a friend's name who died of a treatable form of cancer after submitting to a naturopath is not skeptical enough! How many cancer victims die every year while using the approved methods of the "scientific" community? Cancer is on the increase.

reply: The naturopath did not diagnose cancer. He diagnosed something benign and treated accordingly. Had he suspected cancer, he probably would have sent her to a traditional medical doctor. I have tried to explain this elsewhere, but here goes again. No doubt there are some naturopaths who are better healers than some MDs. But, naturopaths should not be compared to medical doctors when the issue is naturopathy vs. medical science. Naturopathy is based upon a questionable assumption: that healing should be by a "natural" process. Medical science is based upon the same assumptions all the sciences are based upon. To prefer naturopathy to medical science is to prefer quackery to science. I never claim that quackery can't sometimes have good results. Nor do I claim that science is infallible. To expect me to be as skeptical of medical science as I am of naturopathy, homeopathy, traditional Chinese medicine, therapeutic touch, aromatherapy, etc., is unreasonable. I am not skeptical of these alternative health practices because they are fallible, but because they are based upon false or questionable assumptions and generally do not follow scientific methods to establish beliefs. It does not follow from my criticism of alternative health practices that I think traditional medicine is flawless. I do not criticize alternative health practices because their practitioners err or misdiagnose. I criticize them because I believe they are fundamentally unsound. It does not follow that I believe traditional medicine is infallible. I would criticize traditional medicine if it were fundamentally flawed, i.e., if it were based upon false or questionable assumptions. Now, there may be specific procedures which most medical doctors follow or recommend which turn out to be harmful or useless. Nevertheless, I would not reject all medicine because of errors by medical doctors. It would be foolish to reject science because of errors by scientists. It is also foolish to accept alternative medicine because it "works." Yielding results you are satisfied with is not what is meant by "works" in science. Placebos "work." Cures of misdiagnoses "work." Like you say, the only fair way to test the validity of "scientific" medicine is with double blind studies. That's how we find out what "works" in science.

While I truly appreciate the skeptic's philosophy, it would seem that it may be more of a bias against "traditional" healing practices in favor of the "modern" university approach. Yet many of our prescription drugs are discovered by investigating the "traditional" folk remedies.

reply: Yes, and many folk remedies don't really work and science is a process of testing what does and doesn't work. Traditional medicine is not opposed to folk medicine, but it does not assume that the folk remedies are necessarily correct. If by "modern university approach" you mean the approach of science, of tentatively accepting claims and testing hypotheses, then by all means that is the approach of the skeptic.

The protective sanction of 'bad' medicine by the university/medical "profession" is the major force driving the alternative medicine market. The outrageous prices of the "services" offered by MDs, the pharmaceutical industry, and killing zones referred to as hospitals are the real problem. This inhuman "slaughter house" industry is regulated/driven by the profits of the insurance industry; not scientific medicine.

john pash

reply: I'm sure you can back up these claims with evidence. I'm also sure that when you need a liver transplant you won't check into a hospital nor will you take insulin if you develop diabetes. Anyway, I recently received a letter from a man worried about his 97 year old grandfather who was shelling out \$5,000 for chelation therapy. Does that sound reasonable to you? I think you should not overlook in your inventory of horrors the fact that traditional medicine cannot cure everybody's illnesses, much less even diagnose what is ailing many people. Those are reasons many seek alternatives. Science has no answers for them and they are understandably desperate and vulnerable.



[Alternative Health Practices](#)

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charms

Charms are things or words believed to possess magic power.

See related entries on [amulets](#), [fetishes](#) and [talismans](#).

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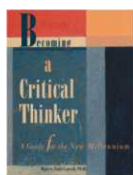
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[Amway Loses Court
Appeal With P&G](#)



[Becoming
a Critical Thinker](#)
by Robert T. Carroll

Amway ([Quixtar](#))

Amway is the largest multi-level marketing ([MLM](#)) organization in the world. It is a multi-billion dollar a year company based on the sale of products as varied as soap, water purifiers, vitamins, and cosmetics. Amway proponents are fond of asserting that their products are of the highest quality, their company is very large (several million distributors and several billion dollars in annual sales), and does business with such giants as Coca-Cola and MCI.

In Amway, one is recruited as an "independent" distributor of Amway products by buying a couple of hundred dollars worth of the products from the one who recruits you, known as your "upline." Every distributor in turn tries to recruit more distributors. Income is generated by sales of products by the distributor plus "bonuses" from sales of his or her recruits and their recruit-descendants.

Here is a description from an Amway distributor as to how it works.

It goes like this:

If I buy \$200 of stuff from Amway this month, I'll get a 3% bonus check (3% of \$200 = \$6). If I share the opportunity with nine others, and we each buy \$200 of stuff from Amway this month, they each were responsible for \$200 and will get \$6, but I'm responsible for \$2000, moving me to the 12% level. I get \$240. However, I'm responsible for paying the bonuses of the people right below me - \$54 - so I keep \$186. I make more because I did more, I found nine people who wanted to buy at a discount and get a bonus for doing it. After I reach the 25% bonus level there are other bonuses that kick in, but they're all based on the volume of product flow, not on signing people up or having lots of people (Bob Queenan, personal correspondence).

Amway defenders take offense at describing this method of sales and recruitment as akin to a [pyramid or chain letter scheme](#). It is true that MLM as practiced by Amway is not an *illegal* pyramid scheme. Amway has been taken to court for being an illegal pyramid and the courts have ruled that since Amway does not charge people either for joining Amway or for the privilege of recruiting others as distributors, it is not an illegal pyramid. Illegal pyramids and chain letters have no product. Amway has lots of household products: from laundry detergent to vitamins, from cosmetics to water filters. Amway is a *legal* pyramid scheme.

the legal pyramid

There are several distinct aspects of MLM schemes that justify calling them legal pyramid schemes. One is the aspect of the chain or line of distributors whose income depends primarily not on their own sales of Amway products but on sales made by others whom they've recruited. The actual practice gets fairly complicated. Here is how Bob Queenan, cited above, describes it:

Now we get into the actual mechanisms. While my product volume is low, it makes sense to combine my order with other orders to reduce the paperwork that Amway has to deal with. So the way I order from Amway is to call my "upline" and place my order. My upline combines my order with others and calls Amway directly. Amway would normally ship direct to the upline, and we'd all go over and pick up our products. In my actual case, I live too far away from my upline to make that practical, so I order through my upline, but get direct shipments from Amway.

Do I sell to other distributors? No, we all buy direct from Amway.

Do other distributors order their products through me? Yes, I combine the orders and send them to Amway.

Do I get money from my distributors? Yes, for the products they buy. I write a combined check to Amway.

Do I profit if my distributors buy more? Yes, I do -- so do they, but yes, I do.

Is my bonus from their money? It's from the bonus pot, which is filled with money saved by not paying middlemen.

Am I missing something here? Haven't the distributors become their own middlemen? Aren't the distributors selling to each other? Isn't income mainly generated by recruiting new members to the organization? Isn't Amway Corporation the big winner in this scheme?

An Amway customer is not just buying a detergent, but is recruited into being a minister of a faith with a complicated bookkeeping scheme. Why not just go to your local store and buy soap, you ask? Because the agent is someone you know, or who knows someone you know, who's invited you over for coffee to tell you about a great opportunity. Odds are good that you'll either buy something out of politeness or a genuine need for soap or vitamins, etc. Perhaps you will become an agent yourself. Either way, the agent (distributor) who sold you the soap or vitamins makes money. If you become an agent

(distributor) then part of every sale you make goes to your recruiter. The new recruit is drawn into the system not primarily by the attractiveness of selling Amway *products* door to door, but by the opportunity to sell *Amway* itself to others who, hopefully, will do the same. The products seem secondary to the process of recruitment. Yet, the distributors will learn to talk about little else than the product and its "quality." What justifies MLM schemes is the high quality of their products. What entices the recruit, however, is likely to be the attractiveness of making money from others' sales, not the products themselves.

Do the numbers add up?

According to [Amway](#), their annual sales amounts to about \$7 billion and there are 3 million distributors. Thus, the average distributor's sales amounts to about \$2,333/yr. If 30% of that is profit, the average distributor makes \$700/yr. Klebniov claims that the average income is \$780, but the average distributor buys \$1,068 worth of Amway goods himself and also has expenses such as telephone bills, gas, motivational meetings, publicity material and other expenses to expand the business. "The average active distributor sells only 19% of his products to non-Amway affiliated consumers," according to Klebniov. "The rest is either personally consumed or sold to other distributors." In the United States, the Federal Trade Commission requires Amway to label its products with the message that 54% of Amway recruits make nothing and the rest earn on average \$65 a month. No such labels are required in other countries, but the facts are clear. Most people who get involved in Amway will not make money.

Far from boosting their incomes, the vast majority of those who become Amway distributors, particularly those in 'the system', are likely to end up losing money.

The majority of the wealth of the tiny number of top-ranked distributors in this country comes not just from the sale of Amway products but from selling motivational materials and organizing seminars and rallies for the people below them (Thompson).

Amway has made a very few people very rich while paying its foot soldiers more in inspiration than in cash (Thompson). There is nothing particularly unique about this in the history of business. What is unique is the faith, devotion and hope that the foot soldiers have.

Is Amway a cult?

Critics of Amway have compared it to a cult whose main product is Amway itself. Amway folk do resemble religious devotees in some respects. They have great faith in their company, its products, and the hope for wealth and

early retirement. They attend seminars and meetings that are reminiscent of revivalist meetings, where the power of positive thinking replaces (or is accompanied by) faith in Jesus. Instead of a parade of souls healed by faith, Amway faithful are treated to testimonials of early retirement with plenty of money. While there have been some accusations of persecution of those who have left the flock, by and large Amway devotion seems harmless enough. Amway doesn't seem to differ much from other zealous big corporations which preach positive thinking about the business of business in endless motivation seminars and retreats, books, tapes, brochures, among other things (Klebniov).

Graham Baldwin of the United Kingdom compares an Amway motivational meeting to a revival or cult meeting. The former University chaplain tries to help people break away from religious cults with his program called "Catalyst." Soon after one of his broadcasts, he got a call from a man

who explained how the group he had joined a year earlier was slowly taking over his life. There were the huge monthly meetings at venues like Wembley Conference Centre where he and thousands of other followers were worked into a passionate frenzy then told to go out and find as many new recruits as possible; there was a powerful doctrine that frowned on television, newspapers and other 'negative' influences; there was the strict dress code and advice on how to bring up children and relate to loved ones; there was the fear that to quit would mean giving up hope of a happy future.

However, having seen the television show featuring Baldwin, the man now alleged that he was being subjected to [mind control](#) techniques and being manipulated by those above him. He wanted advice on making a possible break. Baldwin asked which cult the man was in.

"It's not a cult. It's not a religion. It's something called Amway" (Thompson).

To some of Amway's critics, Amway may look like a religious cult, but to others it just looks like a shell game. The ministers of the faith work their magic by constantly calling your attention to the quality of their products, their concern with ethics, the wealth of their company, their association with Coca-Cola or MCI, the claim that they don't have to pay the middleman or advertising costs, and the numerous testimonials of the faithful who have passed through the valley of death and have arrived on the mountaintop with buckets of gold. Meanwhile, you do not notice that the products are secondary to the process of recruiting new distributors of those products. You do not notice that the wealth and associations of the company are irrelevant to its

promises of wealth to the millions of distributors recruited. You do not notice that many costs, such as mailing, handling, doing forms, advertising, and driving personal vehicles to deliver or pick up products, are picked up by the distributors themselves. You do not notice that even though some people make a decent or more than decent living exclusively through Amway, the chances of all or most distributors making such wealth are absurdly small. You do not notice that while the leaders talk about ethics they are stimulating resentment and greed. And of course you never hear the testimonials of those who feel cheated by Amway; dissidents are not allowed to give their testimony at revival meetings.

The shell game gets even more complicated because when it is pointed out that most people who are Amway distributors either lose money (they buy more products from Amway than they sell) or make a very modest income, the ministers of the faith don't respond honestly and directly by saying that that is what should be expected from such a system. Instead they claim that no one said you would get rich quick at Amway, no one promised great wealth with little work. Those who fail do so because they are failures. They don't work hard enough. They don't devote enough time to their distributorship and recruitment. The failures need motivation!

the dissidents

Paul Klebniov writes that

Former distributors and Amway officials say that like many movements based on a cult of personality, Amway's attitude toward any insider critical of the organization has bordered on paranoia. Edward Engel was Amway's chief financial officer until 1979; he resigned over a disagreement with DeVos and Van Andel [the founding fathers of Amway] on how to run the Canadian operations. This apparently branded him a traitor; he says he and his family received threats for years after his resignation. "It was a Big Brother organization," says Engel today. "Everyone assumed that the phones were tapped, and that Amway had something on everybody."

In 1983 Engel's former secretary, Dorothy Edgar, was helping the Canadians in their investigation of the company. She was roughed up in Chicago, after she was told to "stay away from Amway." Engel, who picked her up after the incident, says he believes her story. Amway would not comment on the incident.

There was extremely bad publicity in 1982 when a former distributor, Philip Kerns, quit to write a damaging expose

called "Fake it Till You Make It." Kerns charges that Amway used private detectives to follow him and rough him up. Kerns' expose prompted the "Phil Donahue Show" and "60 Minutes" to run uncomplimentary pieces on Amway. Amway's recruitment dropped off; with it, sales plunged an estimated 30% in the early 1980s.

In 1984, another former Amway insider, Donald Gregory, says he started to write a book on Amway, but the company obtained a gag order against Gregory in a Grand Rapids court" (Klebniov).

Even so, the vast majority of Amway distributors are probably decent people who believe in the quality and value of Amway products and who are in it to make money in a legal and ethical way. They are not responsible for what the founders or "uplines" do. They are not making wild promises about making millions of dollars with just a few hours of work a week to their friends. The average Amway distributor is undoubtedly not like James Vagyi.

Amway comes to Hungary

Now that capitalism has come to many former communist nations in Europe, Amway has spread its ever-replicating roots into countries such as Hungary and Poland. James Vagyi, the lead recruiter in Hungary, tells potential recruits that the minimum income is about \$9,000 a month [700,000 forints]. Mr. Vagyi says to a group of potential recruits, "If 10 million people were persuaded for 40 years to build socialism in Hungary, you can each find six people to do this." If those six find six who find six who find six, you will be rich in no time. Mr. Vagyi shows his audience a videotape that ends with a message from Amway's co-founder, Richard DeVos: "Ethics and caring for people are the fundamentals of Amway's business." Maybe. But apparently some distributors have cynical views of ethics and the only people they seem to really care for are themselves. Still, isn't this true in every business? Aren't there always a few bad apples who give the whole group a bad reputation?

Is the appeal to greed or to need?

It isn't very likely that the majority of Amway's distributors follow Vagyi's example. Nor do they follow the example of Michael Aspel who used a curious recruitment video in London. The video "features couples who live in enormous detached houses and have luxury cars, talking about how much freedom and independence the Amway opportunity has given them. The narrative tells how the company is built on "ethics and integrity" and how it has helped "thousands improve the quality of their lives" (Thompson).

Furthermore, there is no doubt most Amway meetings are not like the one described by Paul Klebniov:

One weekend this summer over 12,000 enthusiastic people gathered for a rally in Richmond, Va. A handful were wealthy distributors of Amway Corp's products; the rest wanted to be. The meeting began with a prayer and a Pledge of Allegiance. On stage, Bill Britt, the master Amway distributor who organized the rally, introduced the other top distributors, who had arrived in their Cadillacs and Mercedes, flaunting expensive furs and jewelry. With the introduction of each of these role models, the crowd cheered.

Stories such as Klebniov's inevitably lead to the question, *Does Amway encourage fraud?* The answer is *No*. However, one of the main criticisms made of Amway and other MLM organizations, is that they inevitably encourage unscrupulous people to defraud the gullible into thinking that with a little hard work they can become rich beyond their wildest dreams. These unscrupulous people become rich themselves, not by selling Amway products but by selling the concept of Amway and "inspirational materials" such as books, tapes, seminars, etc., aimed at motivating a person to think positively. Critics argue that while it is possible to make a decent living selling Amway products, a realistic person should not expect more than a supplement to one's income from selling the products. The real money is in recruiting people into Amway. The really big money is in selling motivational materials, i.e., hope.

See related entries on [multi-level marketing](#), [MLM harassment](#) and [pyramid schemes](#).

further reading

[reader comments](#)

- [Internet Society Of Ex Amway Distributors With Web-Pages](#)
- [Union Fights Amway](#)
- [MLM Survivors Home Page](#)
- [The Perils of Amway](#) by Russell Glasser
- [What's Wrong With Multi-Level Marketing?](#) Dean Van Druff
- [FTC - The Bottom Line About Multilevel Marketing Plans](#)
- [Amway or Scamway](#)
- [FTC's Online Booklet: "Net Based Business Opportunities: Are Some Flop-portunities?"](#)
- [Quixtar Amway Business Analysis](#)
- [The Mirage of Multilevel Marketing](#) by Stephen Barrett, M.D.
- [Steve Hassan on Amway](#)

- [The Amway HomePage](#)

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Klebnirov, Paul. "[The Power of Positive Inspiration](#)," *Forbes*, December 9, 1991.

Fitzpatrick, Robert L. and Joyce Reynolds. [False Profits - Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes](#) (Charlotte, N.C.: Herald Press, 1997). See my [review](#) of this book.

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[Quixtar](#)

ZDNet has an [extensive article](#) on Amway's entry into e-tailing which is known as [Quixtar](#). All Amway agents (now to be known as IBOs: independent business owners) have been invited to open up their own e-mall, selling not only Amway products but products of other manufacturers as well. The emphasis, as with Amway, will be on [multi-level marketing](#), i.e., recruiting new Quixtar agents who are encouraged to recruit agents ad infinitum. Agents will get a cut of sales made by those they recruit, and by sales of recruits of recruits, ad infinitum theoretically.

Why would the 5th and 6th richest men in the world, Rich DeVoss and Jay Van Andel, founders of Amway, want to get involved with Internet sales? For one thing, there is a lot of money to be had in e-commerce: they're hoping for \$1.5-\$2 billion in sales the first year...better than Amazon.com or E-Bay. Secondly, sales at Amway have dipped recently (18.5% drop in 1998).

Why not call the new company E-Amway instead of Quixtar? That might have something to do with name repulsion.

Will it work? It will certainly work for Devoss and Van Andel. They will have millions of agents to sell products, including their Amway products, from the day they open on September 1, 1999. Unlike Amazon.com, who had to spend some time recruiting agents to sell their products, Quixtar will be able to bank on Amway agents to aggressively market their products from the getgo. How much money will the Quixtar agents make? They may think they will become nanosecond millionaires but my guess is that they will fare about as well as they did as Amway agents.

further reading

- [MLM Survivor's Homepage - Quixtar](#)

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[MLM Alerts! on the Net](#)

multi-level marketing (a.k.a. network marketing & referral marketing)

The idea behind multi-level marketing (MLM) is simple. Imagine you have a product to sell. A common MLM product is some sort of panacea, such as a vitamin or mineral supplement. You could do what most businesses do: either sell it directly to consumers or find others who will buy your product from you and sell it to other people. MLM schemes require that you recruit people not only to buy and sell your product, but who will also recruit people who will not only buy and sell your product but also recruit people....*ad infinitum*. Only there never is an *infinitum* to move towards. This may seem unusual to traditional business people. Why, you might wonder would you recruit people to compete with you? For, isn't that what you are doing when you recruit people to sell the same products you are selling? MLM magic will convince you that it is reasonable to recruit competitors because they won't really be competitors since you will get a cut of their profits. This will take your mind off the fact that no matter how big your town or market, it is finite. The well will go dry soon enough. There will always be some distributors who will make money in an MLM scheme. The majority, however, must fail due to the intrinsic nature of all pyramid schemes.

Multi-level marketing is system of marketing which puts more emphasis upon the recruiting of distributors than on the selling of products. As such, it is intrinsically flawed. MLM is very attractive, however, because it sells hope and appears to be outside the mainstream of business as usual. It promises wealth and independence to all. Unfortunately, no matter what the product, MLM is doomed to produce more failures than successes. For every MLM distributor who makes a decent living or even a decent supplemental income, there are at least ten who do little more than buy products and promotional materials, costing them much more than they will ever earn as an MLM agent. The most successful MLM scheme is [Amway](#). It has millions of distributors worldwide with sales in the billions. At the turn of the century, the average Amway distributor earned about \$700 a year in sales, but spent about \$1,000 a year on Amway products. Distributors also have other expenses related to the business, e.g., telephone, gas, motivational meetings, and publicity material ([Amway.com](#); [Klebniöv](#) 1991).

The reason MLM schemes cannot succeed is because MLM marketing is, in essence, a legal [pyramid](#) scheme. The basic idea is for a sales person to recruit more sales persons. This is very advantageous to those who own the company and supply the products, especially since the sales persons in MLMs are also customers. But it is puzzling why a sales person would think it is to his or her advantage to increase the number of competing sales persons.

This is not to say there is no benefit to MLM membership. You get certain tax write-offs. You get to buy products, some of which you will be happy with. You get to go to inspirational meetings, some of which will make you feel good. You may meet new friends and you may even make a few bucks. But more than likely you will end up alienating some family and friends. You will probably end up buying more stuff than you sell. And you will learn a lot about deceiving yourself and others. You won't be allowed to tell anyone how you are really doing, for example. You will always have to think positive, even if that means lying. You will have to tell anyone who asks that you are doing great, that business is wonderful, that you've never seen anything go so fast and bring you income so quickly, even if it isn't true.

The dangers of MLM schemes have been well articulated by others. If you are thinking of joining any MLM program, I advise you to first read Dean Van Druff's [What's Wrong With Multi-Level Marketing](#) or Robert Fitzpatrick's [False Profits - Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes](#) (Herald Press, 1997).

See **related entries** on [Amway](#), [multi-level marketing harassment](#) and [pyramid schemes](#)

further reading

[reader comments](#)

- [MLM Survivors Home Page](#)
- [What's Wrong With Multi-Level Marketing?](#) By Dean Van Druff
- [FTC - Tips to Avoid Pyramid Schemes](#)
- [FTC's Online Booklet: "Net Based Business Opportunities: Are Some Flop-portunities?"](#)
- [The Mirage of Multilevel Marketing](#) by Stephen Barrett, M.D.
- [Buyers and Sellers Alike Need to Beware of Multilevel-Marketed Health Products](#) by William T. Jarvis, Ph.D.
- [Internet Fraud Watch](#)
- [Steve Hassan on Amway](#)
- [The MLM Yellow Pages](#): Lists over 300 MLM schemes

Fitzpatrick, Robert L. and Joyce Reynolds. [False Profits - Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes](#) (Charlotte, N.C.: Herald Press, 1997). See my [review](#) of this book.

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 [multi-frequency
detectors](#)

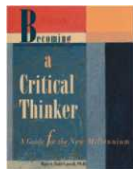
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pyramid schemes, chain letters and Ponzi schemes

A **pyramid scheme** is a fraudulent system of making money which requires an endless stream of recruits for success. Recruits (a) give money to recruiters and (b) enlist fresh recruits to give them money.

A pyramid scheme is called a pyramid scheme because of the shape of a pyramid: a three dimensional triangle. If a pyramid were started by a human being at the top with just 10 people beneath him, and 100 beneath them, and 1000 beneath them, etc., the pyramid would involve everyone on earth in just ten layers of people with one con man on top. **The human pyramid would be about 60 feet high and the bottom layer would have more than 4.5 billion people!**

A diagram might help see this:

```

1
10
100
1,000
10,000
100,000
1,000,000
10,000,000
100,000,000
1,000,000,000
10,000,000,000
    
```

Thus, in very short order, 10 recruiting 10 and so on would reach 10 billion, well in excess of the earth's population. If the entire population of earth were 5 billion and we all got involved in a pyramid scheme, the bottom layer would consist of about 90 percent of the planet, i.e., about 4.5 billion people. Thus, for 500 million people to be WINNERS, 4.5 billion must be LOSERS.

In a straightforward pyramid scheme, a recruit is asked to give a sum of money, say \$100, to a recruiter. The new recruit then enlists, say, 10 more recruits, to give up \$100 each. In the simplest example, the recruiter keeps all the money he gets from his recruits. In our example, each recruit gives up \$100 in exchange for \$900 (\$100 from each of his 10 recruits minus the \$100 he gave his own recruiter). In order for no one to lose money, the recruiting must go on forever. On a planet with a limited number of people, even if the planet is as large as Earth and has almost [6 billion potential recruits](#), one runs

out of new recruits rather quickly.

Thus, the result of all these schemes is inevitable: at best, a few people walk away with a lot of money, while most recruits lose whatever money they put into the scheme. In fact, the only way anybody can make money through a pyramid scheme or chain letter is if other people are defrauded into giving money upon a promise of getting something in return when it will be impossible for them to get anything at all in return. That is to say, in plain English, these schemes *always* constitute **fraud**. They use deception to get money. That is why they are illegal. They are not illegal because they involve recruiting people to recruit other people to recruit other people. That is perfectly legal and is done to some degree in many legitimate businesses. They are not illegal because they involve giving money to people. It is perfectly legal to give money to people. They are illegal because they involve deceiving people in order to get money from them: that is the legal meaning of **fraud**.

In actual fact, however, no pyramid scheme will ever work this way because the scheme will never get the number of recruits we've been speculating about. All pyramid schemes will begin to die when the later recruits don't sign on in numbers large enough to pay off the earlier recruits. There will always be enough people who will smell the scheme out. There will always be too many people who will say "if it sounds too good to be true that's probably because it is." There may even be a good number of people who will realize that though one person recruiting ten doesn't sound like much, it quickly adds up to unrealistic and improbable numbers. Also, all it takes is one person to stop the whole thing, either by adamantly persuading recruiters of their indecency, or by reporting them to the police.

greed and wishful thinking

Pyramid schemes are popular because people are greedy and greed can do wonders to a person's thinking. For a person desiring to make a lot of money from a small investment in a short amount of time, [wishful thinking](#) often takes over where critical thinking should step in. Wishes become facts. Skeptics become idiots for not getting on board. Desires become reality. Asking questions seems rude and unfriendly. Scam artists know how greed works and all it takes is one con man to get the thing started.

With the odds so stacked against a person, why would one gamble on a pyramid scheme? Greed is only part of the answer. Most pyramid people don't envision themselves anywhere near the bottom layer of the pyramid. Even the most greedy person on the planet would probably see that if one is near the bottom layer of recruits it will be very hard to get new recruits. They have to see themselves near the top in order to envision the immense wealth from minimal effort that is going to come their way.

Furthermore, if I hope to get people involved in a pyramid scheme, the first thing I must do is convince them they are **not** getting involved in a pyramid scheme. They may know they are illegal. Or they may realize that pyramid schemes are a losing proposition for at least 90 percent of those who get involved. So, I tell them they are joining a club. I give the club a nice name such as **The Friendly Investors Club** (FIC). I reassure them that the FIC is approved by the IRS and run by a CPA with a Ph.D. who is not an ASS. If I'm really good, my recruits will believe me and the police officers, secretaries, teachers, ministers, etc. whom I recruit. These well-respected, intelligent, honest people will pass on this line to others. If I am really, really good, I will have convinced my recruits not only that they are getting into a legitimate and lucrative Club, but that any earnings are tax-free. I would indicate to recruits that as long as their take in the scheme is less than \$10,000, it wouldn't be taxable because gifts aren't taxable until they exceed \$10,000. I would convince the recruits that, for legal purposes, they would be giving money away and others would be giving money to them.

even the police like pyramid schemes

In 1995-96, at least 67 employees of the Sacramento Police Department, including 45 officers, were investigated for their alleged involvement in a pyramid scheme (*Sacramento Bee* 10/28/95, 11/1/95 and 11/15 & 16/96). The scheme was similar to five others that had been operating in southern California, also involving police officers and support staff. The main suspect in the Sacramento scheme was a police captain's wife. The chief of police said that he would try to fire at least seven officers and discipline 60 other police department employees. Nine officers were placed on administrative leave and relieved of their guns and badges. According to a prosecutor, the scheme involved more than 200 people. However, only three of the accused faced criminal misdemeanor charges. Reportedly, some in the scheme made tens of thousands of dollars. The minimum amount lost by those who were on the bottom of the pyramid was \$500.

The police pyramid schemes are called "investment clubs" and have attractive names such as "The Friendship Investment Club" and "A Gift Network." They're sold to investors with the assurance that they are perfectly legal, approved by the IRS or a CPA, and that they definitely are **not** a pyramid scheme.

The Sacramento scheme was called **The Freedom Club** or something like that. And it was hyped by a police officer as being legal because it required people to sign a waiver claiming that they were making an unconditional gift to the Freedom Club. A local news reporter, Mike Boyd, asked an IRS agent if this waiver meant the Freedom Club wasn't a pyramid scheme. The IRS agent said that since the people who were signing the waiver expected to get back money for the money they were allegedly making a gift of, the money wasn't really a gift. An attorney, also interviewed by Boyd, agreed that just signing a paper saying you're making an unconditional gift didn't make it so if

your intention was not to make an unconditional gift. (*Receiving* gifts, of course, is legal, and tax free.) The cops and their recruits for the Freedom Club put in at least \$500 each and expected something like \$4,000 in return for their phony gifts, according to Boyd. The *Bee* reported that sources told them that some Police Department personnel got more than \$10,000 out of the scheme. The WINNERS in the scheme got their money from "gifts" to the Freedom Club from those who later joined the Club. Such schemes continue, if the participants are not caught, until there are not enough new recruits to pay off the old ones. That is, they would continue until there were a good number of people who had "given" away \$500 and got nothing in return because the scheme folded. The scheme would have to fold eventually, because there can't be an endless stream of recruits.

The Sacramento Police Pyramid scheme involved what we might call "pyramid pods". An organizer (Numero Uno) would start the pod by getting six others to join as organizers. Presumably, the six would be ranked depending on when they were recruited. The organizers pay nothing to join the pod but together they must recruit enough people into the pod to buy eight spots at the bottom of their pyramid. Each spot costs \$500. Numero Uno pockets the \$4,000. The pod splits into two pods of seven people (or spots) each, with a new Numero Uno in each pod (and a new number 2, 3, 4, 5, 6 and 7). Each pyramid pod recruits more people at \$500 for each of eight spots in the pyramid. The two new Numero Unos take their \$4,000 each and the two pods split into 4 pods and those 4 into 16, ad infinitum. To make even more money, some joined more than one pod.

How many in this scheme told the new recruits that 6.7% of those who join will get a 700% return on their investment (\$3,500 on a \$500 investment) as long as 93.3% get nothing? How many advised their recruits to "get in early"?

To have police involved adds a special dimension to this pyramid scheme because (a) officers have ranks and can use their rank for recruiting leverage over those beneath them; (b) officers and ex-officers have positions of authority and trust which will influence potential recruits, especially young people; and (c) police personnel are supposed to enforce the law; when the law enforcers become lawbreakers and encourage others to break the law for monetary gain, respect for law and law officers diminishes.

chain letters

In the money **chain letter**, the recruiter sends the new recruits a letter with a list of names on it, including the recruiter's name at the bottom of the list. The recruits are asked to send money to the person whose name is at the top of the list and to add his or her name to the bottom. Money is made solely by getting new recruits to join the chain, adding their names to the list and recruiting others to do the same. In theory, eventually each recruit's name will be at the top of millions of lists and receive millions of dollars. In practice, most people

will receive nothing. Anyone can break the chain, thus depriving all those on the list of any possible "earnings." But, even if no one broke the chain, 95% of those who sent money out will get nothing in return.

If pyramid schemes are a bad investment, how about chain letters? The principle is basically the same, except that with chain letters, you don't have to deceive yourself as much as with pyramid schemes. You probably know up front that the scheme depends on duping friends into giving money to strangers in exchange for the promise of riches coming to you later on from other strangers. You get a letter with a list of names on it. You are told to send money to the name at the top, delete that name and add your name to the bottom, and recruit 5 or 10 people to do the same by sending them the letter with your name at the bottom.

Ponzi schemes

A Ponzi scheme, named after [Charles Ponzi](#) who defrauded people in the 1920s using the method, involves getting people to invest in something for a guaranteed rate of return and using the money of later investors to pay off the earlier ones. Who will make money from such a scheme? Those who start it and those who get in early. Does anyone really make money from these schemes. They must, or they would have died off long ago. How? If I start the scheme, I just skim off the top and pay off enough people to make it look like it's working, even if that means buying in again at the bottom. I might even be stupid enough to think that I can keep the scheme going when the recruiting has dried up. I can try to get money quickly by some other scheme. For example, I can take a big chunk of money and go to Las Vegas and hope to hit it big. This happened to a fellow I played Little League Baseball with long before we both grew up. He took his investors' money to the craps table where he "invested" their funds. Unfortunately, his "investments" didn't pay off and he went to prison.

I don't know how many people lost money "investing" in my Little League buddy's scheme, but it could not have been as bad as what happened in Romania in 1993 or what happened in Albania in 1997.* In both cases, thousands of people with little opportunity for investment of capital were swindled by pyramid scheme operators. Romania's newspapers claimed that millions of Romanians lost their life savings in a scheme called *Caritas*. Reports from Albania claim that hundreds of thousands of Albanians "have invested their life savings or money they earned working abroad" in one of several outlawed pyramid schemes. "The schemes offered very high interest rates, with the first investors paid from later investors' deposits. They eventually failed when no new investors came in" ("Investment-scam protest turns violent in Albania," by Merita Dhimgjoka, *Sacramento Bee*, Feb. 6, 1977). Any such scheme is doomed to fail because there cannot be an endless line of "investors." Only greed and self-deception are endless.

See related entries on [Amway](#), [multi-level marketing](#), [Multi-Level Marketing harassment](#) and my [review](#) of *False Profits - Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes* by Robert L. Fitzpatrick and Joyce Reynolds (Charlotte, N.C.: Herald Press, 1997).

further reading

[reader comments](#)

Read about Fortuna Alliance and the FTC charges that it is a pyramid scheme being run on the internet!

- [Pyramid Schemes, Ponzi Schemes, and Related Frauds](#) by Bob Blaylock
- [FTC - Tips to Avoid Pyramid Schemes](#)
- ["Tips on...Multi-Level Marketing \(How to Tell a Legitimate Opportunity from a Pyramid Scheme\)"](#)
- ["How to Avoid Ponzi and Pyramid Schemes,"](#) A Consumer Education Publication by the Securities and Exchange Commission
- [Albania: Pyramid Schemes Common Across Eastern Europe](#) by Lindsay Percival
- [Those Thrilling Days](#) (about the Fortuna scam)
- [The FTC press release on Fortuna](#)
- [Another press release from the Seattle Regional Office](#)
- [Chain Letters](#) by Donald Watrous
- [Charles K. Ponzi Website](#)

Bulgatz, Joseph. *Ponzi Schemes, Invaders From Mars, and More Extraordinary Popular Delusions* (Harmony Books, 1992). [out of print](#)

[Fitzpatrick, Robert L. and Joyce Reynolds. *False Profits - Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes* \(Charlotte, N.C.: Herald Press, 1997\). See my \[review\]\(#\) of this book.](#)

[Walsh, James. *You Can't Cheat an Honest Man: How Ponzi Schemes and Pyramid Frauds Work... and Why They're More Common Than Ever* \(Merritt Publishing, 1998\).](#)

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mind control (brainwashing)

Mind control is the successful control of the thoughts and actions of another without his or her consent. Generally, the term implies that the victim has given up some basic political, social, or religious beliefs and attitudes, and has been made to accept contrasting ideas. 'Brainwashing' is often used loosely to refer to being persuaded by propaganda.

conceptions & misconceptions of mind control

There are many misconceptions about mind control. Some people consider mind control to include the efforts of parents to raise their children according to social, cultural, moral and personal standards. Some think it is mind control to use behavior modification techniques to change one's own behavior, whether by self-discipline and autosuggestion or through workshops and clinics. Others think that advertising and sexual seduction are examples of mind control. Still others consider it mind control to give debilitating drugs to a woman in order to take advantage of her while she is drugged.

Some of the tactics of some recruiters for religious, spiritual, or New Age human potential groups are called mind control tactics. Many believe that terrorist kidnap victims who convert to or become sympathetic to their kidnapper's ideology are victims of mind control (the so-called [Stockholm syndrome](#)). Similarly, women who stay with abusive men are often seen as victims of mind control. Many consider [subliminal](#) messaging in Muzak, advertising, or on self-help tapes to be a form of mind control. Many also believe that it is mind control to use laser weapons, isotropic radiators, infrasound, non-nuclear electromagnetic pulse generators, or high-power microwave emitters to confuse or debilitate people. Many consider the "brainwashing" tactics (torture, sensory deprivation, etc.) of the Chinese during the Korean War and the alleged creation of [zombies](#) in Voodoo as attempts at mind control.

Finally, no one would doubt that it would be a clear case of mind control to be able to hypnotize or electronically program a person so that he or she would carry out your commands without being aware that you are controlling his or her behavior.

clarification of the term

A term with such slack in its denotation is nearly useless. In narrowing down the denotation the first thing to do is eliminate as examples of mind control those activities where a person freely chooses to engage in the behavior.

Controlling one's thoughts and actions, whether by self-discipline or with the help of others, is an interesting and important topic, but it is not the same as brainwashing or programming people without their consent.

Using fear or force to manipulate or coerce people into doing what you want them to do should not be considered to be mind control. Inquisitions do not succeed in capturing the minds of their victims. As soon as the threat of punishment is lifted, the extorted beliefs vanish. You do not control the mind someone who will escape from you the moment you turn your back.

To render a woman helpless by drugs so you can rape her is not mind control. Using a frequency generator to give people headaches or to disorient them is not the same as controlling them. You do not have control over a person's thoughts or actions just because you can do what you want to them or render them incapable of doing as they will. An essential component of mind control is that it involves *controlling* another person, not just putting them out of control or doing things to them over which they have no control.

fiction and mind-control

Some of the more popular misconceptions of mind control originated in fiction, such as "The Manchurian Candidate." In that film, an assassin is programmed so that he will respond to a post-hypnotic trigger, commit a murder, and not remember it later. Other books and films portray [hypnosis](#) as a powerful tool, allowing the hypnotist to have his sexual way with beautiful women or to program her to become a robotic courier, assassin, etc. One such book even claims to be "based on a true story": *The Control of Candy Jones* (Playboy Press, 1976) by Donald Bain. To be able to use hypnosis in this powerful way is little more than [wishful thinking](#).

Other fictional fantasies have been created that show drugs or electronic devices, including brain implants, being used to control the behavior of people. It has, of course, been established that brain damage, hypnosis, drugs or electric stimulation to the brain or neural network can have a causal effect on thought, bodily movement, and behavior. However, the state of human knowledge on the effects of various chemical or electrical stimulation to the brain is so impoverished that it would be impossible using today's knowledge and technology to do anything approaching the kind of mind control accomplished in fantasy. We can do things that are predictable, such as cause loss of a specific memory or arousal of a specific desire, but we cannot do this in a way which is non-intrusive or which would have the significance of being able to control a large array of thoughts, movements, or actions. It is certainly conceivable that some day we may be able to build a device which, if implanted in the brain, would allow us to control thoughts and actions by controlling specific chemical or electrical stimuli. Such a device does not now exist nor could it exist given today's state of knowledge in the neurosciences. (However, two Emory University neuroscientists, Dr. Roy Bakay and Dr.

Philip Kennedy, have developed an electronic brain implant that can be activated by thoughts and in turn can move a computer cursor.)[*](#)

the government and mind-control

There also seems to be a growing belief that the U.S. government, through its military branches or agencies such as the CIA, is using a number of horrible devices aimed at disrupting the brain. Laser weapons, isotropic radiators, infrasound, non-nuclear electromagnetic pulse generators, and high-power microwave emitters have been mentioned. It is known that government agencies have experimented on humans in mind control studies with and without the knowledge of their subjects (Schefflin 1978). The claims of those who believe they have been unwilling victims of "mind control" experiments should not be dismissed as impossible or even as improbable. Given past practice and the amoral nature of our military and intelligence agencies, such experiments are not implausible. However, these experimental weapons, which are aimed at disrupting brain processes, should not be considered mind control weapons. To confuse, disorient or otherwise debilitate a person through chemicals or electronically, is not to control that person. To make a person lose control of himself is not the same as gaining control over him. It is a near certainty that our government is not capable of controlling anyone's mind, though it is clear that many people in many governments lust after such power.

In any case, some of the claims made by those who believe they are being controlled by these electronic weapons do not seem plausible. For example, the belief that radio waves or microwaves can be used to cause a person to hear voices transmitted to him seems unlikely. We know that radio waves and waves of all kinds of frequencies are constantly going through our bodies. The reason we have to turn on the radio or TV to hear the sounds or see the pictures being transmitted through the air is because those devices have receivers which "translate" the waves into forms we can hear and see. What we know about hearing and vision makes it very unlikely that simply sending a signal to the brain that can be "translated" into sounds or pictures would cause a person to hear or see anything. Someday it may be possible to stimulate electronically or chemically a specific network of neurons to cause specific sounds or sights of the experimenter's choosing to emerge in a person's consciousness. But this is not possible today. Even if it were possible, it would not necessarily follow that a person would obey a command to assassinate the president just because he heard a voice telling him to do so. Hearing voices is one thing. Feeling compelled to obey them is quite another. Not everyone has the faith of Abraham.

There seem to be a number of parallels between those who think they have been [abducted by aliens](#) and those who believe their minds are being controlled by CIA implants. So far, however, the "mind-controlled group" has not been able to find their John Mack, the Harvard psychiatrist who claims

that the best explanation for alien abduction claims is that they are based on alien abduction experiences, not fantasies or delusions. A common complaint from the mind-controlled is that they can't get therapists to take them seriously. That is, they say they can only find therapists who want to treat them for their delusions, not help them prove they're being controlled by their government. Thus, it is not likely that the "mind-controlled CIA zombies" will be accused of having delusions planted in them by therapists, as alien abductees have, since they claim they cannot get therapists to take their delusions seriously. In fact, many of them are convinced that their treatment as deluded persons is part of a conspiracy to cover-up the mind control experiments done on them. Some even believe that False Memory Syndrome is part of the conspiracy. They claim that the idea of [false memories](#) is a plot to keep people from taking seriously the claims of those who are now remembering that they were victims of mind control experiments at some time in the past. It is hard to believe that they cannot find a wide array of incompetent [New Age therapists](#) willing to take their claims seriously, if not willing to claim they have been victims of such experiments themselves.

subliminal advertising and mind-control

On a lighter note, one of the lesser myths about mind control is the notion that [subliminal messages](#) are effective controllers of behavior. Despite widespread belief in the power of subliminal advertising and messaging, the evidence of its significant effectiveness is based on anecdotes and unscientific studies by interested parties. You will search in vain for the scientific studies that demonstrate that playing inaudible messages such as "do not steal" or "put that back" in muzak significantly reduces employee or customer theft, or that subliminal messages increase sales of snacks at movie theaters.

disruption and harassment are not mind control

The above considerations should make it clear that what many people consider mind control would best be described by some other term, such as *behavior modification*, *thought disruption*, *brain disabling*, *behavior manipulation*, *mind-coercion* or *electronic harassment*. People are not now being turned into robots by hypnosis or brain implants. Furthermore, it should be obvious that given the state of knowledge in the neurosciences, the techniques for effective mind control are likely to be crude, and their mechanisms imperfectly understood.

Thus, if we restrict the term 'mind control' to those cases where a person successfully controls another person's thoughts or actions without their consent, our initial list of examples of what people consider to be mind control will be pared down to just five items: the tactics of religious, spiritual, and other New Age recruiters; the tactics of husbands who control their wives; the Stockholm syndrome; the so-called brainwashing tactics of the Chinese inquisitors of American prisoners during the Korean War; and the

alleged creation of [zombies](#) in Voodoo. The last, however, can be dismissed as based either on fraud or on the use of drugs to render people helpless.

Wives who are terrorized by their husbands or boyfriends are not victims of mind control, but of fear and violence. Still, there seem to be many cases where a battered woman genuinely loves her man and genuinely believes he loves her. She stays, beating after beating, not because she fears what he will do to her if she leaves, but because she really doesn't want to leave. Perhaps. But perhaps she doesn't leave because she is completely dependent on her lover/batterer. She doesn't stay just because she has nowhere to go. She needs him and stays because she is completely dependent on him. If a man can reduce a woman to a state of total dependency, he can control her. But is it true to say that he has controlled her mind? To what extent, if any, can a batterer take away the [free will](#) of his victim? He can reduce her choices so that staying with him is the only option she knows. What is the likelihood of this happening? It seems more likely that she will reduce her own choices by rationalizing his behavior and convincing herself that things will get better or that they really aren't that bad. If a man is not using brute force or the fear of violence to keep a woman around, then if she stays, it may be because of choices she has made in the past. Each time she was abused, she chose to stay. He may have used sweet and seductive talk to persuade her not to leave, but at some time in the relationship she was free to reject him. Otherwise, the relationship is based on fear and violence and mind control does not enter the picture. A woman who appears to be under the spell of a batterer is not a victim of mind control. She is a victim of her own bad choices. This is not to say that we should not sympathize with her plight or extend aid to her should she ask. She is where she is through bad luck and a series of bad choices, not because of mind control, assuming, of course, that the woman is not mentally ill. In that case, it is Nature, not her man, that has reduced her capacity for free choice. The abuser takes advantage of the situation, but he does not create it.

recruiters, kidnappings and inquisitions

That leaves recruiters for spiritual, religious, or personal growth groups; kidnappers; and inquisitors. First, the tactics of the recruiters differ substantially from those of kidnappers or inquisitors. Recruiters generally do not kidnap or capture their recruits, and they are not known to use torture as a typical conversion method. This raises the question of whether their victims are controlled without their consent. Some recruits are not truly victims of mind control and are willing members of their communities. Similarly, many recruits into mainstream religions should not be considered victims of mind control. To change a person's basic personality and character, to get them to behave in contradictory ways to lifelong patterns of behavior, to get them to alter their basic beliefs and values, would not necessarily count as mind control. It depends on how actively a person participates in their own transformation. You and I might think that a person is out of his mind for

joining [Scientology](#), [Jehova's Witnesses](#), or [Jim Roberts' The Brethren](#), but their "crazy beliefs and behaviors" are no wilder than the ones that millions of mainstream religious believers have chosen to accept and engage in.

Some recruits into non-mainstream religions seem to be brainwashed and controlled to the point that they will do great evil to themselves or others at the behest of their leader, including murder and suicide. Some of these recruits are in a state of extreme vulnerability when they are recruited and their recruiter takes advantage of that vulnerability. Such recruits may be confused or rootless due to ordinary transition difficulties (such as new college students), difficult life circumstances (such as failing in college or at a new job), or even tragic personal events (such as death to close friends or loved ones) or world events (such as war or terrorism). Some may be mentally ill or emotionally disturbed, greatly depressed, traumatized by self-abuse with drugs or abuse at the hands of others, etc. But it would not be to the advantage of the cult to actively recruit the emotionally disturbed. As one cult recruiter told me

Cults have complicated ideologies and practices that mentally or emotionally upset people have difficulty grasping. These structures are what allow the cult to control the person. Cults do not want people who are difficult to control.

Thus, while some recruits might be very vulnerable to those who would like to control their thoughts and actions, recruiters look for people they can make vulnerable. The recruiter quoted above also said

Cults seek out strong, intelligent, idealistic people. They also seek out the rich, no matter what their mental status is.

The goal is make the recruits vulnerable, to get them to give up whatever control over their thoughts and actions they might have. The goal is to make the cult members feel like passengers on a rudderless ship on a stormy sea. The recruiter or cult leader has a rudder and only he can guide the ship to safety.

The techniques available to manipulate the vulnerable are legion. One technique is to give them the love they feel they do not get elsewhere. Convince them that through you and your community they can find what they're looking for, even if they haven't got a clue that they're looking for anything. Convince them that they need faith in you and that you have faith in them. Convince them that their friends and family outside the group are hindrances to their salvation. Isolate them. Only you can give them what they need. You love them. You alone love them. You would die for them. So why wouldn't they die for you? But, love alone can only get you so far in winning them over. Fear is a great motivator. Fear that if they leave they'll be destroyed. Fear that if they don't cooperate they'll be condemned. Fear that

they can't make it in this miserable world alone. The manipulator must make the recruit paranoid.

Love and fear may not be enough, however; so guilt must be used, too. Fill them with so much guilt that they will want to police their own thoughts. Remind them that they are nothing alone, but with you and God (or some Power or Technique) they are Everything. Fill them with contempt for themselves, so that they will want to be egoless, selfless, One with You and Yours. You not only strip them of any sense of self, you convince them that the ideal is be without a self. Keep up the pressure. Be relentless. Humiliate them from time to time. Soon they will consider it their duty to humiliate themselves. Control what they read, hear, see. Repeat the messages for eyes and ears. Gradually get them to make commitments, small ones at first, then work your way up until you own their property, their bodies, their souls. And don't forget to give them drugs, starve them, or have them meditate or dance or chant for hours at a time until they think they've had some sort of mystical experience. Make them think, "It was you, Lord, who made me feel so good." They won't want to give it up. They have never felt so good. Though they look as if they are in Hell to those of us on the outside, from the inside it looks like Heaven.

What religion doesn't use guilt and fear to get people to police their own thoughts? Even some therapists use similar methods to control their patients. They prey on the vulnerable. They demand total loyalty and trust as a price for hope and healing. They often isolate their prey from loved ones and friends. They try to own and control their clients. The methods of recruiters are not much different. Are the recruits, the converts to the faith, and the patients willing victims? How would we tell the difference between a willing victim and an unwilling victim? If we cannot do that, then we can't distinguish any true cases of mind control.

Recruiters and other manipulators are not using mind control unless they are depriving their victims of their free will. A person can be said to be deprived of his free will by another only if that other has introduced a causal agent which is irresistible. How could we ever demonstrate that a person's behavior is the result of irresistible commands given by a religious, spiritual, or personal growth leader? It is not enough to say that irrational behavior proves a person's free will has been taken from them. It may be irrational to give away all one's property, or to devote all one's time and powers to satisfying the desires of one's divine leader, or to commit suicide or plant poison bombs in subways because ordered to do so, but how can we justify claiming such irrational acts are the acts of mindless robots? For all we know, the most bizarre, inhumane, and irrational acts done by the recruits are done freely, knowingly and joyfully. Perhaps they are done by brain damaged or insane people. In either case, such people would not be victims of mind control.

That leaves for consideration the acts of kidnappers and inquisitors: the acts of systematic isolation, control of sensory input, and torture. Do these

methods allow us to wipe the cortical slate clean and write our own messages to it? That is, can we delete the old and implant new patterns of thought and behavior in our victims? First, it should be noted that not everybody who has been kidnapped comes to feel love or affection for their kidnappers. It may be that some kidnapped or captured people are reduced to a state of total dependency by their tormentors. They are put in a position similar to that of infancy and begin to bond with their tormentors much as an infant does with the one who feeds and comforts it. There is also the strange fascination most of us have with bullies. We fear them, even hate them, but often want to join their gang and be protected by them. It does not seem likely that people who fall in love with their kidnappers, or who turn against their country under torture, are victims of mind control. There is certainly some explanation why some people act as Patricia Hearst did and why others under similar circumstances would not have become "Tanya". It is doubtful that mind control should play much of a role in the explanation. Some women are attracted to gangsters, but have few opportunities to interact with them. We do not need to revert to mind control to explain why Hearst became intimate with one of her terrorist captors. She may have thought she had to in order to survive. She may have been genuinely attracted to him. Who knows? Mind control is a better defense than "changed my mind about a life of crime" when facing bank robbery and murder charges.

Finally, it is widely believed that the Chinese were successful in brainwashing American prisoners of war during the Korean War. The evidence that their tactics of torture, isolation, sensory deprivation, etc., were successfully used to control the minds of their captives is non-existent. Very few (22 of 4,500 or 0.5%) of those captured by the Chinese went over to the other side (Sutherland 1979, 114). The myth of success by the Chinese is primarily due to the work of Edward Hunter, whose *Brainwashing in Red China: the Calculated Destruction of Men's Minds* (New York: Vanguard Press, 1951) is still referred to by those who see mind control tactics as [a major menace today](#). The CIA provided most of Hunter's fodder in their effort to inspire hatred of the North Koreans and communism, to explain why some American soldiers didn't hate the enemy, and "to aggrandize their own role by arguing that they themselves must investigate brainwashing techniques in order to keep up with the enemy" (Sutherland 1979, 114).

It seems then, that if we define mind control as the successful control of the thoughts and actions of another without his or her consent, mind control exists only in fantasy. Unfortunately, that does not mean that it will always be thus.

See related entries on [cults](#), [est](#), [hypnosis](#), [mind](#), [Rama](#), [Ramtha](#), [subliminal](#), [wishful thinking](#) and [zombies](#).

further reading

- ["Brainwashing": Career of a Myth in the United States and Europe](#) by Massimo Introvigne
- [Conspiracy Theories and Paranoia: Notes from a Mind-Control Conference](#) by Evan Harrington
- [Do tinfoil helmets provide adequate protection against mind control rays?](#) by Cecil Adams
- [Conspire.com: greatest conspiracies of all time](#)
- [Government Research into E.S.P. and Mind Control](#)
- [Allegations of "brainwashing" within religious cults](#) - ReligiousTolerance.org
- [Biderman's Chart of Coercion](#)
- [Rick Ross, deprogrammer, on "brainwashing"](#)
- [Microwave Harassment and Mind-control experimentation](#) by Julianne McKinney
- [Understanding the Victims of Spousal Abuse](#) Frank M. Ochberg.
- [The "Not Me" Myth: Orwell and the Mind](#) by Margaret Thaler Singer Ph.D.
- [Masters and Slaves: The Tragedy of Jonestown](#) by Fanita English
- [The Battle for Your Mind](#) by Dick Sutphen

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multi-level marketing (MLM) harassment

Multi-level marketing harassment is a form of economic harassment in the work place whereby a superior uses his or her power to recruit a subordinate into a multi-level marketing scheme. Like sexual harassment, MLM harassment can be subtle or blatant. The most blatant form would be using the direct threat of not hiring or promoting, or even firing someone for not agreeing to become an "independent" MLM agent. Of course, talented managers know many subtle ways to suggest to their subordinates that their success with the company depends upon their saying 'yes' to the boss.

One of the most successful MLM companies is [Amway](#). The basic formula is simple. First, there is the "Company", which has a product or array of products. Second, there are the independent distributors who (a) sell the Company product and (b) recruit new distributors who do the same, ad infinitum if possible. The reason distributors don't just sell the Company product is that they receive "bonuses" for sales made by their recruits. Theoretically, the richest independent distributor would have dozens, hundreds, thousands, even millions of subordinate distributors who would be doing the actual selling, while the Big One did little or no selling of the Company product at all. That is, the emphasis of MLM schemes is not selling the Company *product* but selling the *Company* itself.

It should be obvious, then, that the Big Cheese of a non-MLM company could stand to reap substantial economic rewards from having a little army of "independent distributors" (read "coerced employees who will buy the MLM Company products and recruit others to do so). MLM infestation is inevitable in non-MLM bureaucracies. The main bait may be the promise of extra cash to the subordinate, but superiors (managers, purchasers, personnel officers, supervisors, etc.) are really interested in their own extra cash. Superiors who have bought into the Unimagined Wealth Dream of most MLM schemes will not have many scruples recruiting their subordinates. It is possible that the superiors may even deceive themselves into thinking that they are offering bona fide economic opportunities to their subordinates. It is also quite likely that many employees will not feel coerced but will buy into the Unimagined Wealth Dream themselves. (Just as some bosses may delude themselves into thinking that they are really offering an opportunity to an employee's sexual happiness when they make sexual advances to a subordinate. And, just as some people who are seduced by their bosses, end up marrying the boss.) These facts complicate matters, and may sometimes make it difficult to prove harassment occurred. After all, if you are agreeable, how can anyone say you were harassed?

But it is not just large, bureaucratic businesses which may see MLM harassment. Schools, for example, may also be prone to MLM harassment. In fact, anywhere there is a person who has power over others, the opportunity for MLM harassment emerges. Fear of not being hired or re-hired and fear of not being promoted or of being fired can be powerful incentives to get on board the MLM bandwagon.

As far as I know, there are no laws prohibiting superiors of non-MLM organizations from recruiting inferiors into MLM schemes. Nor are there laws for discriminating against someone solely because they did not want to join an MLM scheme. Thus, even if you could prove beyond a reasonable doubt that the only reason you were fired from your last job as a structural engineer was because you refused to become an Amway agent when asked to do so by your superior, you may have no recourse in a court of law.

Because of the potential for abuse of power, one would think that companies and organizations would as a standard rule prohibit MLM recruitment. But how many of us have worked at a place which has a policy against MLM harassment? Very few, I think. The exception, of course, would be if you work for one of the Armed Services. Our military organizations know quite well how easy it is for superior officers to take advantage of those who are their juniors. And they have rules which forbid such behavior. For example, you will find the following rule in the *Code of Federal Regulations* (32 CFR Sec. 721.6)

Standards of conduct governing naval personnel

(c) Using naval position. Naval personnel are prohibited from using their official positions to improperly induce, coerce, or in any other manner improperly influence any person to provide any benefit, financial or otherwise, to themselves or others....

(e) Commercial solicitations by naval personnel. To eliminate the appearance of coercion, intimidation, or pressure from rank, grade, or position, all naval personnel are prohibited from making commercial solicitations or sales to DOD [Department of Defense] personnel who are junior in pay grade, or position, at any time or place.

Commercial sales, whether or not solicited, are prohibited between officer and enlisted military personnel....

(1) This prohibition includes, but is not limited to, the solicitation and sale of insurance, stocks, mutual funds, real estate, and other commodities or goods.

In fact, naval personnel are forbidden to engage in outside employment, with or without compensation, if that employment is

inconsistent with the requirements of this instruction, including the requirement to avoid actions and situations which reasonably can be expected to create the appearance of a conflict of interest.

How many private corporations include such protection against abuse of power in their employees' manual?

It should be emphasized that MLM harassment goes way beyond the kind of intimidation one feels when the boss brings in her kid's school candy bars and asks you buy them for the Save the World Fund. The one-time only or the once-in-a-while extortion is small change--however inconvenient--compared to having to become an MLM agent. The difference is like the difference between having to go to Church on Christmas and having to join a cult.

See related entries on [Amway](#) and [multi-level marketing](#).

postscript: Thanks to Diogenes, whoever you are.

[reader comments](#)

further reading

- [What's Wrong With Multi-Level Marketing?](#)
- [FTC - Tips to Avoid Pyramid Schemes](#)
- [FTC's Online Booklet: "Net Based Business Opportunities: Are Some Flop-portunities?"](#)
- [MLM Survivors Home Page](#)
- [The Mirage of Multilevel Marketing](#) by Stephen Barrett, M.D.
- [Internet Fraud Watch](#)
- [Steve Hassan on Amway](#)
- [Union Fights Amway](#)

Fitzpatrick, Robert L. and Joyce Reynolds. [*False Profits - Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes*](#) (Charlotte, N.C.: Herald Press, 1997). See my [review](#) of this book.

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[multi-level marketing](#)

[multiple personality disorder](#)



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reader comments:

Amway

09 Aug 1999

I just wanted to thank you for the information that you have placed onto your web page and I thank God that there is such a thing as the Internet to provide such easy access to this information.

About a week ago I was introduced to the Amway corporation while looking around a Chapters Bookstore before heading out to see a movie later that night in Kitchener, Ontario, Canada. I had never heard of Amway before being introduced to it. I would consider my self to be a positive uplifting person who is not afraid to work and make a go at being prosperous so I found the information to be interesting. I am always looking for ways to better myself and increase my income so the Amway pitch sounded to see a really good opportunity to me. But I also consider myself to be an analytical person who simply wants the facts before making a decision as big as this. So right after I met with the mother/son team that introduced me to the business I was handed a lot of information with tapes and books to read during my one week of holidays. A lot of the information sounded good but I found that everything that was handed to me was vague and didn't give me what I wanted to know about the venture.

The day I came back from my holidays I drove with a few other people to a meeting to try and get more information "from the horses" mouth so to speak. I must confess that alot of the information that is given is actually good advice for anyone that wants to better themselves. They quoted may people that I have respect for and read about such as the Late Norman Vincent Peele, Dave Thomas (of the Wendy's franchise), etc. But something was still bothering me. I can be as emotional as the next person I felt that something was a bit "cultish" to the whole experience...I just couldn't put my finger on it. It felt like I was in a Religious Revival Meeting/Business Pep Rally where the "gods" of the business came down to walk among the mortals. I could see why alot of people get into this business. It is contagious to be around positive people and this is what the people were being fed at such meetings.

Anyway the main reason that I wanted to go to the meeting is because of the new development into the business....E-commerce. The company is supposedly coming together with Microsoft and IBM to market a new web site for buying products from Amway called [Quixtar](#), which, by the way is starting September 1st, 1999. The information presented to me sounded quit good and I thought to

myself that this is something that I could really sell to a lot of people.

But, as with anyone with common sense, I also realized that everything presented to me was bias. I wanted to have a good balance of facts. So I went onto the internet to see what other peoples had to say. Luckily I found what I needed to see and hear.

So to conclude I just wanted to thank you for your web site and for helping me come to a rational and right decision of "Thanks...but no thanks"

Sincerely, Robert Kloosterhuis

PS. Please keep up the good work by placing such information on your website...I REALLY is appreciated

reply: Thanks. The kind words are appreciated also.

6 Jul 1998

I have to put in my two cents on this one!! I was, and am, an Amway distributor. At this point I do not pursue it as a business, rather as a convenient method of shopping. I really like the products and the prices (yes they are lower if you consider cost per use (highly concentrated, my dishwasher soap lasts a year!) rather than cost per item. Check it out again! However, my husband and I determined over the course of three years that Amway was not the type of business we wanted to pursue. We knew that we were in search of being independent of a job but did not know what we wanted to do. We checked out Amway and discovered that through books (education), tapes (motivation) and functions (information) we were on the right track in pursuing our own business. Take a look at anyone who has a successful business of any kind and ask them how they got there. Most will say that it was very focused, hard work, meaning that at times it meant that they did not go to the movies with friends, and instead attended seminars, read business books and consulted with mentors or listened to tapes of people that are where you want to be. In my particular line of sponsorship it was always recommended that you have a balance of priorities in life. In order of importance 1) God (whatever that means to you), 2) Family, 3) country, and then 4) Amway. Perhaps the reason people ignore everything else in their life when they join Amway is that THEY feel like they need to. It's really simple, if you want to succeed at anything it takes A LOT of effort and balance.

Now let's clear some things up...

- 1. Amway is a manufacturing and distribution company. There primary function is to manufacturer products and offer cash incentives and bonuses for the distribution of their products.*

2. *Amway DOES NOT supply information about how to build a lucrative distributorship. Often times there are groups of individuals that set up a "plan" for how to build a business. These people are independent distributors creating their own methods. It would behoove anybody actively pursuing an Amway distributorship (or any other business for that matter) to thoroughly research and ask many questions of the group they are looking at. These groups are not affiliated with or promoted by the Amway corporation. The often seen "Christian connection" is not encouraged by Amway, rather, by specific groups of distributors. As in any arena of life, there are good and bad people everywhere. If you jump into anything without looking first you're pretty foolish.*
3. *Amway is an excellent example of good business practice. They are a multi-billion dollar business. If I remember correctly, 1/3 of their profit is returned to distributors in the form of cash bonuses. They are a privately held, debt-free corporation (almost unheard of in modern business). While it is true that at one time "upline" Direct Distributors were not required to pay "downline" distributors a bonus until they reach the Direct Level, or sell to them products at wholesale cost, this rarely happened. Most distributors were receiving their bonuses regularly and their products at wholesale. Amway corporation IS now in the process of shifting to direct order and all of the bonuses and product costs in my group are dealt with directly through Amway. And, by the way, they spend a lot of money on the community and charity (they are one of the largest yearly contributors to Easter Seals).*
4. *There is a legal precedent for determining if a multi-level business is an illegal pyramid type business. The business they use for comparison? Amway. Surprise. The legal community even regards Amway and its structure as a legal and viable way of creating income.*

Now my husband and I are creating a business in the field of massage therapy and bodywork. A huge jump from Amway? Not necessarily. It's a business and the basics still apply. We read, attend seminars and continuing education courses, listen to self-improvement tapes and speak to mentors and our business is progressing nicely. We thank Amway and INA (our line of sponsorship) for teaching us excellent methods of business building and personal development. We have never been humiliated, teased or bothered by anyone in Amway about our choice to pursue other business opportunities. I believe the difference is that we have taken responsibility for our lives. We don't put down Amway or the people in it. Frankly, there are lots of jerks in the world and why would Amway be any different. If you don't do well in Amway it's because YOU didn't do well in Amway. The fact is there are LOTS of people who do and are happy with it.

Why am I so strongly defending a business venture I don't pursue? I believe that people need to take responsibility for their own choices and actions. That there are people selling Amway that are not up front or are shady in their methods does not mean that Amway is a bad business. There is some responsibility to be taken by those of you that choose to pursue a business that makes you uncomfortable from the beginning. Thanks for the venting space.

Juli K.

16 July 1998

I was reading through many articles on the Amway Phenomenon. I came across the emails people have sent you. I was an Amway distributor 6 years ago. I fell into the trap of spending money on trips and tapes and books etc. I do NOT however blame anyone in the organization I was affiliated with for the money I spent. It was always my choice to attend functions or buy support material.

As a recovering alcoholic and drug addict I can compare this to my decision to try that first drug and to eventually stay away from drugs. No one ever forced me to do them, it was my choice. In twelve step programs I have learned how to stop doing drugs. I compare the positive things I learned while I was building my Amway business 6 years to my recovering. If you are familiar with 12 step programs, they only work if you work them!!! As with Amway it is not a get-rich quick scheme. It is a business opportunity that must be worked at in order to become successful.

The Amway business is an opportunity, just like going to college, or buying a new car. I am presently studying for my Master's Degree in counseling/psychology. I want to someday have a retreat center for families to come for counseling. My husband recently became an Amway distributor. This business will give us the opportunity to have the income to buy a large place to make that dream come true. My husband does not work for the Amway corporation, (we would have to live in Michigan, not CT) which is a misconception of many people. He too is a recovering addict. He finds the tapes motivational and positive, just as he does his 12 step meetings. I am very supportive of him building this business. He was injured on the job and is getting very little support from his employers. Amway is an opportunity for him to build a business and help other people start a business if they desire. He does not pressure anyone, or try to fool them. He is honest in his approach that he is offering them a service and an opportunity if they so desire. He does not say it is AMWAY and it is because of the negativity of websites and misinformed people that we do not say, "Would you like to look at AMWAY".

We are leaving tonight to go to NC for a function on building this business. I enjoy the functions and had spent a lot of money attending them before. But then again I spent a lot of money on drugs and associated with people I thought were my friends. It did me not good. I too have been injured on my job and do not have the support of the administration. This business DOES give people the opportunity to have a business and provide others with the same opportunity. It has given my husband hope that he can earn an income despite his injury. Instead of hearing the negativity and degrading influence of the "powers that be" at his work he is hearing people tell him he can do it! If Amway is a cult it is the most positive influence I have ever been around.

Sincerely,
SAB

I sent you an email, but am adding more to what I previously said. The Amway products, soap, vitamins etc. are only 15% of the product line. Have you ever looked over a flyer from the local Stop & Shop? Are there only Stop & Shop brands in there? Is that all the store promotes? Of course not! They have Campbell soup, and Healthy Choice, and Nestea, and the list goes on. Does a JC PENNEY catalog only have JC PENNEY clothing? No they have Lee's, London Fog etc. Try looking at an Amway personal shoppers catalog and you will see these same products and about 15,000 more. These manufacturers have no problem selling their products through Stop and Shop or through Amway. Why do people have such a negative attitude about a distribution company who also makes a few of their own products? They don't have a store... instead it is word of mouth advertising. AND an opportunity to distribute products and offer people the chance at entrepreneurship!!!!

Do people pick apart and criticizes SPRINT and AT&T because they call you at home and advertise on the TV? They may complain about being bothered at home, but has either company ever offered to give you the opportunity to start you own long distance phone company with possibility for a large income, if you are willing to "recruit" enough customers? NOT TO MY KNOWLEDGE!!!! If people want to know the facts about becoming a lawyer and the income potential, do they talk to their garbage man? OF COURSE NOT!!! They would talk to a LAWYER!!! Then why do people look for information about becoming an AMWAY distributor from people who don't know what it is to be one? I do know! It is a great opportunity, yes it takes some effort. But so does getting a Master's Degree. I know I am working on mine in an independent study program while I work full time, and I have Traumatic

Brain Injury!!! If you want something bad enough you find the time and the means to do it!

21 Aug 1998

As of noon today, I will walk my precious wife out the door of an Amway Diamond for whom she has worked for the past five years. We have had enough. She has been the administrative assistant and function coordinator managing the huge functions where 1000's of good people are bilked out of \$100,000' s every year.

We have seen so many lives wrecked, marriages destroyed and careers ruined because of the lies and deception that goes on and on and on. It is indeed a cult which preys on the unwary. Many claim that it is a Christian organization and it is true that Christianity is involved. However, the leadership in no way model Christian morality, principles, and conduct. They espouse Christian values but

lead lives of greed, selfishness, self-interest and are constantly involved in lawsuits amongst themselves and greedy infighting which hardly characterizes Christian conduct.

For most, Christianity is used to add nobility and creditability to their thwarted greedy cause. They are liars and hypocrites touting financial freedom when they themselves are under frightening and staggering debt loads caused by their insatiable appetite for more and more material gain regardless of the cost so they can demonstrate how financial freedom works when in reality they are digging a deeper and deeper hole for themselves and lying to those under them.

It is not a product distribution system. It is a system whereby the individual themselves become the consumer. No one really sells the products to people on the outside of Amway. Everyone who joins becomes the consumer that drives the organization. The products are sold at tremendously high prices, much higher than in commercial marketplace. The rank and file individual member is the sole support of the up line and spend huge amounts of money until some where along the line they wake up and drop out, bruised, beaten and much worse off than when they started, often having incurred debt that will have to be repaid.

Members are encouraged to hang in there at any cost until they "Make It Big" themselves. They are told to sell things so they can stay in. Pull the equity out of their homes, sell that second car that's paid for, sell the extra TV, sell old family jewelry, sell whatever they can so that they can hang in there and go to function. Of course; the functions are where the Diamonds really cleanup. Amway is something to be left alone and avoided. It is a dead end heartbreaker.

GARYB7

[more comments](#)



[Amway](#)

A unique business, Amway. A mass movement more than a corporation. It has made a very few people very rich while paying its foot soldiers more in inspiration than in cash.

THE POWER OF POSITIVE INSPIRATION

By Paul Klebniov

Sneered at in the media, investigated and fined by the authorities, Amway Corp keeps growing. The world's second largest door-to-door sales operation was conceived in a basement in Grand Rapids, Mich only 32 years ago and today boasts \$3.1 billion in retail sales (\$2.6 billion at wholesale prices) from around the globe.

To this day Amway is owned almost entirely by its founders - Richard DeVos, 65, and Jay VanAndel, 67 - and their immediate families. Forbes estimates the company earned \$300 million last year after tax and that DeVos and VanAndel are each worth close to \$3 billion - although it is admittedly difficult to value a business that, like Amway, is based on ephemeral human relationships.

Amway manufactures and sells soap, cosmetics, vitamins, food products and other household products and sells water filters, Coca Cola machines, MCI service, clothing and thousands of other items through its catalog. There is nothing unique about these mundane products. What is totally unique is the size of Amway's sales force, close to 600,000 strong in the U.S., 500,000 in Japan and several hundred thousands more in places like Germany, Mexico, Korea and Malaysia.

Although the average Amway distributor sells barely \$1,700 worth of goods a year, the sheer size of the sales army and its enthusiasm ensure success.

In an interview with Forbes at Amway's headquarters for its 300 acre manufacturing and distribution center just outside Grand Rapids, Mich., DeVos spoke at length about the marketing phenomenon he and VanAndel have created. "Amway is more than just a company, it's a movement to help people help themselves," says DeVos in a pleasant, low-pitched voice. "Nobody has ever traveled down the road that we have traveled."

The road has taken some odd twists. This year, for example, Proctor & Gamble successfully concluded the last of four suits against Amway distributors for spreading bizarre and damaging rumours that P&G and its products were instruments of Satan. ("Whenever you deal with a million people you're going to have people who overstep boundaries," says DeVos, defensively.)

Perhaps he can't keep his eye on a million distributors, but he does know how to inspire almost every last one of them. The underlying principle is simplicity itself: Persuade the distributors that their interests and Amway's are exactly the same. One must turn outside the world of business - to religion and politics - to find people who work as hard for as little financial reward as most Amway people do.

Cynics would compare the system to a chainletter; here's how it works.

Distributor A recruits distributors B, C, D each of whom recruits three more distributors to work for them. If this recruiting pattern continues ten times - that is, there are 11 levels in the distribution chain - then the fellow who started the network, distributor A, would have 88,572 distributors working for him. If each of these people sells, on average \$1,000 worth of products, you've got an \$89 million marketing organization stemming from that one distributor A.

At offices, health clubs, beauty salons, churches, Amway recruits. The basic pitch: Whatever your dream is - a boat? a fancy car? kid's education? - it is within your grasp if you just devote some of your spare time to selling Amway products and recruiting other people to sell them.

In itself, the pitch is honest enough. Some Amway people do become affluent, even rich. But not many of them. The lion's share of money earned by Amway distributors is pocketed by 2% of the sales force, the organization's 35,000 so-called direct distributors.

These distributors typically have about 50 downline distributors channeling orders up to them. Direct distributors gross a minimum of about \$35,000 a year. The really big money - bonuses of up to \$300,000 and more - is made by a handful of kingpins at the top of the heap.

And once a network has been created, what's to stop the organiser from selling other goods to the faithful? Indeed, the really successful operators sell self-help books, tapes and even investment schemes to their recruits to supplement their incomes.

Among the big distributors are people like Chapel Hill, N.C.'s Bill Britt and Charlotte's Dexter Yager. These two men each run networks of over 100,000 distributors and are each believed to net over \$10 million a year.

As with any army, the recruits are expendable. Amway is a fluid organization. Nearly half of the 1.8 million distributors who will be registered with Amway worldwide will drop out in the course of the year. For those who remain, the average distributor

in the US will net around \$780 a year in bonuses and markups from selling Amway products. But in addition to the products the distributor sells to others, he will also consume, on average, \$1,068 worth of Amway goods himself. And he may spend hundreds of dollars or even thousands more on telephone bills, gas, rallies, publicity material and other expenses to expand the business. Some of the distributors may end up dipping into their savings, and a few may even run up debts.

The real money is made not by peddling to the public but by recruiting for Amway's sales force. There is a great incentive for a new recruit to quickly recruit distributors reporting up to him. Which is why DeVos can say with some confidence: "We'll expand not by selling more per store but by opening more stores" - recruiting more distributors, that is.

Is Amway an illegal pyramid scheme? As far as the authorities have been able to discover, the answer is no.

The fact remains. The average foot soldier doesn't make much money for his or her efforts. This is where the inspiration comes in.

When he says, "Amway is more than a company; it's a movement" DeVos isn't just spouting propaganda. Amway promises, in effect: Join Amway, work hard and, with almost no capital investment, you too can become as rich as Bill Britt or Dexter Yager. It's up to you.

Few Amway distributors do not know by heart the inspiring rags-to-riches stories of the most successful distributors. Among the patron saints of the Amway movement is Charlie Marsh, a gravel-voiced former small-town policeman who built a hugely successful world-wide Amway network. There is Bernice Hansen, the grandmother who was an accountant in Grand Rapids before she joined Amway and discovered her talents for sales and recruiting. Perhaps most inspiring is Dexter Yager, the stout, bearded former beer salesman from Rome, N.Y.

In a world where many people find little satisfaction in the paychecks they receive from big companies or public agencies, such visions of financial independence are often compelling. But Amway goes a crucial step beyond mere money. It offers its recruits membership in a community of like-minded people - entrepreneurial, motivated, upwardly mobile people who believe in their country, in God and in their family. "This country was built on religious heritage, and we had better get back in it. We had better start telling people that faith in God is the real strength of America!", Richard DeVos writes in his book "Believe!".

Amway distributors are bound by a set of shared beliefs reinforced by myths, icons and documents. They are expected to read self-improvement books (popular titles include "Believe!" and "How to be Happy though Married"). They purchase and listen to Amway-sponsored inspirational

cassettes (usually live recordings of their "upline" leaders' speeches and seminars). And they are expected to use only Amway products in their personal lives. Internal Amway documents show that the average active distributor sells only 19% of his products to non-Amway affiliated consumers. The rest is either personally consumed or sold to other distributors.

It all adds up to this. When you sell Amway products, you're not working for a boss or a faceless organization and its shareholders. You're working for yourself and for Richard DeVos, Jay Van Andel, Charlie Marsh, Bill Britt, Dexter Yager, and all the other Amway people who struggled and made it. You're on the Amway team, and it feels good to be there.

Amway rallies typically resemble a mix between a rock concert and a religious revival meeting. The evenings are often kicked off with inspiring music - the theme from "Rocky" say, or "Chariots of Fire" - followed by much audience hand-holding, singing, swaying and listening to testimonials. Some Amway leaders, such as Dexter Yager, are famous for working their crowds into Amway chants and ... their audiences with inspirational speeches that last ***** [Sorry this is unreadable..]

If Amway sounds like a commercial version of fundamental religion, DeVos offers no apologies.

"For a lot of people Amway is their way out [of poverty]" he says, "so Amway relates right down to the grass roots, right down to where people live, you wonder why this mythology, why this rah rah, why they scream and yell. They scream and yell for the same reason they do at a football game. They have discovered that it is fun to be around people who cheer other people on, who encourage people".

One weekend this summer over 12,000 enthusiastic people gathered for a rally in Richmond, Va. A handful were wealthy distributors of Amway Corp's products; the rest wanted to be.

The meeting began with a prayer and a Pledge of Allegiance. On stage, Bill Britt, the master Amway distributor who organized the rally, introduced the other top distributors, who had arrived in their Cadillacs and Mercedes. flaunting expensive furs and jewelry. With the introduction of each of these role models, the crowd cheered.

Britt, 60, was a city manager in North Carolina before becoming an Amway distributor. An inspirational speaker, he might have made a great television evangelist had he not found Amway. He addresses his message not above or below but straight at the average Amway distributor's dreams "I got tired of my Mercedes and I'd heard that the Lexus was a nice car. So I went down and bought myself one - and, yes, it is a nice car."

Britt normally lectures the audience on living clean, traditional

lives. "Don't wear pants in the family," he admonishes the women, who make up half his audience. He glowers at the men: "Get rid of your pornography."

This time he focuses on the visions of financial security. Britt talks of the multimillion-dollar business he has built selling Amway products. Hundreds of average working people - barbers, policemen, truck drivers, car wash supervisors, dentists, middle managers - are introduced, and many of them recount how they became successful and became better people with Amway. After each story the audience roars its approval of the proud witnesses. ("We have two forms of reward in this world," says DeVos. "One is recognition, and the other is dollars. We employ them both in the Amway business.")

After two days the ceremonial part of the Britt rally ends as the audience joins hands and, swaying gently, sings "God Bless America". The attendees leave feeling good about Amway and good about themselves.

As DeVos puts it: "Our people are seeking inspiration all the time, as most people are. Some people find it in the Rotary Club, some people find it at church and some people like to go to Amway meetings."

How did DeVos and Van Andel get the idea for Amway? As great business ideas often do, this one came to them by accident, and without much indication that it would make them millionaires.

In the 1940s Van Andel and DeVos were next-door neighbors in a Dutch-American section of Grand Rapids, Mich. DeVos' father was a car dealer, Van Andel's a garage owner. Both men, says DeVos, inspired in their sons an entrepreneurial spirit and desire to start their own businesses.

During World War II the two friends served in the Army Air Corps. After the war they started a chartered air service, then a drive-in restaurant.

Then, in 1949, they joined a small direct-sales firm called Nutrilite. Nutrilite was started by an entrepreneur, Carl Rehnborg, who survived on cooked plants and animal bones in a detention camp in China in the 1920s and had gotten the idea for marketing a nutritional supplement.

DeVos and Van Andel developed a particularly successful Nutrilite distributor network that eventually grew to about 200 distributors in the Midwest. But the friends were not cut out to be rungs on someone else's distribution ladder. When Rehnborg and other Nutrilite leaders quareled in 1959, DeVos and Van Andel pulled their 200 distributors out of Nutrilite and struck out on their own.

Amway's first product was Frisk, a biodegradable soap whose distribution rights they bought from a struggling Detroit chemist. Using the sales methods and distributor network they brought from Nutrilite, DeVos and Van Andel sold so much soap that within two years they had opened their own soap manufacturing plant outside of Grand Rapids.

They added other products - cosmetics and cookware. Soon they were expanding across the country and over the border into Canada. The power of pyramid math was really working. Starting in the early 1970s, they expanded overseas, to Australia, the UK, France, Germany, Japan.

DeVos and Van Andel have become very powerful men. Former President Gerald Ford and Ronald Reagan have addressed Amway rallies. Some senators have been Amway distributors, as have celebrities like singer Pat Boone and former football coach Tom Landry. All of these roles help inspire the Amway movement with a patriotic and religious feeling.

There were setbacks for Amway - one of them nearly fatal - along the way. The Federal Trade Commission began investigating Amway in the 1970s to determine whether Amway was, among other things, an illegal pyramid scheme in which newly recruited distributors lose out unless they themselves recruit other members.

"That was really a 'go' or 'no go' situation for us," remembers DeVos. Finally, in 1979, the FTC ruled that Amway was not a pyramid, but found it did engage in restraint of trade and misleading advertising.

In the 1980s the Canadian government charged DeVos and Van Andel with customs fraud. Amway paid the Canadians \$58 million to settle criminal and civil charges.

Is there today a snake in Amway's paradise? There are several.

As with a church or a political party, Amway must constantly protect its image if it is to recruit new members. In some cases, Amway seems to have taken concern for its image to extremes.

Former distributors and Amway officials say that like many movements based on a cult of personality, Amway's attitude toward any insider critical of the organization has bordered on paranoia.

Edward Engel was Amway's chief financial officer until 1979; he resigned over a disagreement with DeVos and Van Andel on how to run the Canadian operations. This apparently branded him a traitor; he says he and his family received threats for years after his resignation. "It was a Big Brother organization," says Engel today. "Everyone assumed that the phones were tapped, and that Amway had something on everybody."

In 1983 Engel's former secretary, Dorothy Edgar, was helping the Canadians in their investigation of the company. She was roughed up in Chicago, after she was told to "stay away from Amway". Engel, who picked her up after the incident, says he believes her story. Amway would not comment on the incident.

There was extremely bad publicity in 1982 when a former distributor, Philip Kerns, wrote a damaging expose called "Fake it Till You Make It". Kerns charges that Amway used private detectives to follow

him and rough him up (see photo below). kerns' expose prompted the "Phil Donahue Show" and "60 Minutes" to run uncomplimentary pieces on Amway. Amway's recruitment dropped off; with it, sales plunged an estimated 30% in the early 1980s.

In 1984, another former Amway insider, Donald Gregory, says he started to write a book on Amway, but the company obtained a gag order against Gregory in a Grand Rapids court.

More bad publicity surfaced to hurt Amway in 1989, when it teamed with Minneapolis' remainder magnate Irwin Jacobs to buy work in Avon Products, Inc. as part of their respective takeover bids for Avon. Avon Chairman James Preston hired private investigating firm Kroll Associates to dig up some dirt on Amway, Kroll unearthed several lawsuits pending against William Nicholson, who was hired in 1984 as Amway's chief operating officer. Several days afterwards, Amway and Jacobs dropped their bid.

The fact that Amway is a loose confederation of hot-shot sales empires creates other thorny problems. In years past, several of Amway's wealthiest distributors created independent empires that published their own magazines, organized their own rallies and even published their own versions of the Amway sales and marketing plan.

Known inside Amway as the "Black Hats", these master distributors frequently indulged in excessively high-pressure methods of exploiting their foot soldiers, persuading them to shell out hundreds of dollars each for distributor-produced books, tapes and even unrelated products and investment schemes.

The problem: if Amway's distributors make a lot of money from selling such promotional materials (as opposed to actual products) to new recruits, then it again raises questions of an illegal pyramid scheme.

In 1985 two distributors sued Bill Britt, Dexter Yager and Amway Corp among others in the state of Washington, alleging they were "brainwashed" into purchasing enormous amounts of motivational materials. The case was settled out of court in 1988, but a gag order was placed on the court records and participants involved in the case.

Says DeVos: "We're dealing with many motivated entrepreneurial individuals who are actively seeking to improve their businesses. Through their own lack of knowledge they can run afoul of the law, or do thing they shouldn't do."

Why not fire the rascals? Says DeVos: "Whenever you terminate anybody in this business it sends tremors through the whole organization, because [the distributors] say 'Oh, oh, the company now has the power to kick me out.' And all those people with the sole idea of owning their own business and doing their own thing suddenly have a spike driven through their hearts."

The lawsuits, bad publicity and government scrutiny seem to have taken

a toll. Several of the old-line distributors now seem to have become ultraconservative in their recruitment of new distributors - bad news for an organization that grows with a constant influx of new recruits.

Says one colleague of kingpin distributor Bill Britt: "Britt has become very conservative. He's preoccupied with the FIC, with the legalese of what can and cannot be done. To listen to him these days, you'd think you were listening to a lawyer."

Fortunately for DeVos and Van Andel, there are fewer such problems overseas so far - where Amway has kept tighter control over its distributors. Amway Japan has expanded into a network with over 500,000 distributors accounting for \$734 million in sales last year.

Last April, DeVos and Van Andel sold a sliver - 8% - of Amway Japan to the Japanese public. The Tokyo market values Amway Japan at \$5 billion, a fanciful value based more on the tiny amount of stock outstanding than the business' inherent value. Next foreign targets: Brazil, Poland, Indonesia, China, the Philippines, and Czechoslovakia.

DeVos is convinced that motivating foreigners is no different from motivating people in the U.S. "In Mexico, people will ride a bus for hours to come to an Amway meeting because Amway will give them a shot at success. Most of these people have believed for generations that they would never be anybody, because the rich guy on the hill told them they'd never be anybody. But the Amway business has come to symbolize for great numbers of people their chance to get out of their rut".

As the sleep of centuries lifts from more and more people around the world, as the dead hand of socialism vanishes, this message should bring recruits flocking to the Amway banner all across the world.

Will the message continue to reverberate when DeVos and Van Andel are gone? There are simple signs that the company is preparing for that day. Several top executives have taken early retirement, and there are rumours that Nicholson is on his way out. DeVos and Van Andel each have four children; all but one - Richard DeVos Jr. - work for Amway. "My guess is that we will have professional management, at least initially", says Van Andel.

But can hired hands run a truly entrepreneurial business of this sort? Probably not. Amway may well decline when DeVos and Van Andel are gone. But there will be other Amways. The business is rooted in principles deeply rooted in human nature.

Forbes, December 9, 1991.

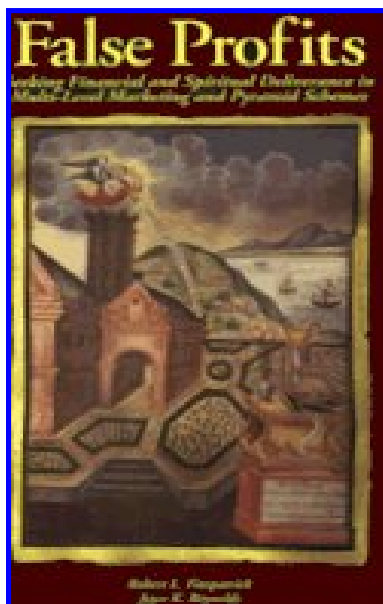
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False Profits

Seeking Financial and Spiritual Deliverance in Multi-Level Marketing and Pyramid Schemes

by Robert L. Fitzpatrick and Joyce Reynolds

Charlotte, N.C.: Herald Press, 1997

The best thing about this book is its title, a clever play on the religious undercurrent of the main multi-level marketing (MLM) schemes such as Amway. But the authors' proposal to replace the false hopes of MLM and pyramid schemes with the vacuous platitudes and profound errors of the likes of M. Scott Peck and Marsha Sinetar is not one this reader has any sympathy for. I can't recommend this book in general, but I do recommend it to anyone contemplating joining an MLM business.

The authors argue that the apparent motive of greed, which drives the millions of people who are recruited into MLM schemes, is really a quest for spiritual fulfillment. Those seeking the City of Man are really seeking the City of God. It is true that much of the claptrap and ritual associated with MLM organizations more than vaguely resemble the trappings of evangelistic religions. And it is true that both religious and MLM devotees unabashedly identify financial success with spirituality. Pat Robertson, Jerry Falwell, and all the other hypocrites for Christ not only do not apologize for their materialistic ambitions, they seem to identify God's love for them with their worldly success. Personally, I liked the old-time religion of the Rev. Ike, a televangelist in the sixties who wore diamond rings on every finger and demonstrated the glories of God in a parade of testimonials of God-inspired money. Ike was no hypocrite. God wants you to be rich, he said. If you love God, he'll reward you with money. Prove you love God by sending Ike money. It was that simple. Falwell and Robertson make the same appeal, only they are much less straightforward about it.

The authors do a good job of comparing the tenets of the MLM faithful with that of New Age spiritual seekers and televangelists. But I think they overstate the case for their notion that seeking financial abundance is (a) identified with (a false) spiritual enlightenment, and (b) a substitute for real spiritual

enlightenment. It's true that many MLM advocates talk about "unimagined wealth" but most of those who are recruited into MLM schemes do it to make a few bucks on the side. They may be deluded into thinking that if there's big bucks to be made doing this, surely there will be some chump change left for me. But I don't think the majority join Amway, Shaklee, or any of the dozens of MLM programs selling vitamins and minerals, so that they can retire on easy street without working. Most of them join to supplement their income. They're not after any kind of salvation, financial or spiritual.

That's not to say that there are not MLM advocates who are seeking vast riches and think they're doing God's work as they get rich. When I first put an entry for Amway in my *Skeptic's Dictionary* it was a short piece based on a funny story I'd read in the *Wall Street Journal* about a guy who wanted to be the first Amway king of Poland. He told his potential recruits something like "hey, if ten million people can be talked into believing in communism, surely you can recruit six to believe in Amway!" Other than having been tricked into attending a recruiting party by my mother's next-door neighbor and buying some shoe polish from a friend of a co-worker, I didn't know much about Amway at the time. I was soon to learn that Amway people are not ordinary. The vitriolic mail I received was way out of proportion to the article. "Amway" soon became my number one entry: about 4,000 people a month were visiting my Amway page and it seemed like half of them were letting me know that I was a killer of dreams, a destroyer of lives, a negative force in a universe which needed positive light; I was attacked for having evil motives, for trying to ruin the lives of people who were doing their best to succeed. I got a lot of mail from people who told me they were Christians and wished me well as I spent my life working for others while they retired on easy street in their twenties. I got letter upon letter telling me my data was all wrong. They'd be rich while I stayed poor. I posted most of this mail. It now occupies five files, each as long as the current Amway entry, which I revised extensively after doing some more research. I can attest from the mail I've received from many Amway distributors that what Fitzpatrick and Reynolds claim is true about many MLMers seeking wealth and identifying their quest with endearment to God. But it is not true of all of them. Many, as I said, are just looking for way to supplement their income.

False Profits makes a convincing case that no MLM scheme is a good way to go about making money, either a little bit or a lot. That is the strength of this book: it details the economic absurdity of the concept of multi-level marketing. First, there is the comparison with [pyramid schemes](#). The authors examine the history and popularity of such schemes, even among the educated and literate, although they are illegal. Being illegal has never put a damper on these schemes, even among people in law enforcement, who can be as greedy and needy as the rest of us. One thing you will hear from Amway folk is that they are *not* a pyramid scheme. How do they know this? They know this because some agency of the federal government said so. Some court ruled that since Amway does not charge people either for joining Amway or for the privilege of recruiting others as distributors, it is not an illegal pyramid. What

Amway and all other legal MLM businesses are, then, are **legal pyramid schemes**. *False Profits* demonstrates the inexorable math, as well as the simple economics of the matter, that MLMs can only provide financial success at the expense of many who must fail. MLMs only sell products because they have to in order to be legal; otherwise, all they would sell is hope. The focus of any MLM is not on selling a product, but on recruiting more distributors who recruit more distributors ad infinitum, but of course there is no ad infinitum and that is why most who join in will not make money in either a pyramid scheme or an MLM scheme.

I would recommend this book only to those who are contemplating joining an MLM business. You should read this book before you get into the business. It will show you that all the positive thinking in the world, all the lies you will have to tell about what you do and how well you are doing it, are not worth it in the end. You will be asked to recruit your family and friends and you will probably end up losing both in your quest for wealth. You will gain a new family, a new community, of equally positive-sounding, energized people who admire millionaires and try to end world hunger, but it will not be worth it. You will buy motivational tapes, pay for motivational seminars, buy motivational books and attend motivational meetings. You will be motivated and energized, but it will not be worth it. You will end up losing friends, family, money and time. You may even be duped into thinking God wants you to be rich and MLM is God's way of rewarding those who love Him, but it will not be worth it. You will be deluded into thinking that the only thing keeping you from your dreams is your attitude. The only thing honest about multi-level marketing is its legality. To find out just how deep the dishonesty and deceit goes, read *False Profits*.

Order [False Profits](#) direct from the author.

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[Recommendations and Rejections](#)

HIDDEN PERSUADERS, by Tony Thompson, [Time Out](#), June 22 - 29 1994

(Amway says it can make you rich beyond your wildest dreams with its multi-level marketing system; critics say it only makes money for a very few at the top, and its techniques are worryingly cult-like. **Tony Thompson** asks if vulnerable Londoners are being misled by this and other groups promising to transform your life.)

It was two days after he had been seen on national television, helping a young girl break away from a religious sect, that the call came through to Graham Baldwin's office.

The former university chaplain who now runs Catalyst, a counselling and therapy service for those affected by cults, listened carefully as the man explained how the group he had joined a year earlier was slowly taking over his life.

There were the huge monthly meetings at venues like Wembley Conference Centre where he and thousands of other followers were worked into a passionate frenzy then told to go out and find as many new recruits as possible; the powerful doctrine that frowned on television, newspapers and other 'negative' influences; there was the strict dress code and the advice on how to bring up children and relate to loved ones; there was the fear that to quit would mean giving up hope of a happy future.

However, having seen the television show featuring Baldwin, the man now alleged that he was being subjected to mind control techniques and being manipulated by those above him. He wanted advice on making a possible break. Baldwin asked which cult the man was in.

"It's not a cult. It's not a religion. It's something called Amway".

At first glance, the Amway Corporation, one of the largest direct-sales companies in the world, couldn't be less cult-like. Founded by two school-friends in a basement in Michigan in the US in 1959 with a single soap product, the company has grown into a \$4.5 billion-a-year manufacturing and sales network employing some 11,000 workers in more than 50 countries across the world. Its founders, Jay Van Andel and Richard DeVos, are said to be worth at least \$3bn each.

Amway currently manufactures thousands of products from

cosmetics and cookware to household cleaners and vitamins. None of these is available in the shops - instead they are sold direct to the public, person-to-person, by a multi-level marketing network of two million independent distributors who earn a commission on everything they sell.

Amway came to the UK in 1973 and now has 73,000 British distributors, who sell mostly to friends and family in their spare time, on a self-employed basis. The company is highly respected in business circles - at a recent motivational seminar for distributors, former Chancellor Norman Lamont delivered a keynote speech. In the last financial year the British operation turned over £50 million, an increase of 56 per cent on the previous year. Projected turnover for 1993-94 is £70 million.

This phenomenal growth is not solely due to the company's products but more down to the fact that it offers virtually anyone and everyone a deal which many, especially those bitten by recession, find hard to resist. Join us, say Amway's distributors, and within two to five years you could be rich beyond your wildest dreams and spend your days 'walking the beaches of the world'.

A recruitment video, presented by Michael Aspel, features couples who live in enormous detached houses and have luxury cars, talking about how much freedom and independence the Amway opportunity has given them. The narrative tells how the company is built on 'ethics and integrity' and how it has helped 'thousands improve the quality of their lives'.

However, a major investigation by Time Out has uncovered evidence that:

- * Far from boosting their incomes, the vast majority of those who become Amway distributors, particularly those in 'the system', are likely to end up losing money.
- * Support groups headed by senior distributors within the Amway organization are adopting cult-style tactics to recruit and motivate those below them. Help groups such as Catalyst, the Cult Information Centre and Family Action Information and Rescue (FAIR) are increasingly receiving calls from worried Amway distributors and their families, concerned about the techniques being used to keep them in the organization.
- * The majority of the wealth of the tiny number of top-ranked

distributors in this country comes not just from the sale of Amway products but from selling motivational materials and organizing seminars and rallies for the people below them.

The basic principle of the multi-level marketing which Amway uses is that it is far easier to make a living by taking 1 per cent of the sales efforts of 100 people than it is to rely on 100 per cent of your own efforts.

Thus Amway distributors only spend a fraction of their time dealing with their customers - most of whom are friends and family. Instead, the majority of their time is spent trying to recruit others into the network. The basic scenario goes something like this: you recruit or 'sponsor' six friends into the organization. They in turn each sponsor three friends who in turn each sponsor two more friends. You then have a 'downline' of 60 people. If each one sells say a mere £140 worth of products each month, you earn a commission of £1000. The more people in your downline, the bigger your cut.

Furthermore, as the sales volume of your group grows, you can earn bonuses on top of your commission. Each new bonus level is given a title. Those on the bottom level of 'leadership' are known as 'direct' distributors while those above them - the 'upline' - are known in ascending order as Pearls, Emeralds, and Diamonds. Typically these 'jewels' have thousands in their downlines and the most successful are said to be millionaires.

Finding sponsors is known as 'showing the plan' and the keenest recruits will devote four or five evenings a week to building their networks. As rejection is common, recruits are urged to join the 'system' which helps to boost confidence, hone people skills and top up motivation. Those who are fed a near constant diet of positive mental attitude books, inspiring motivational audio tapes and invited along to regular training meetings and seminars all of which they are told will make their business grow faster and bring financial freedom all the nearer.

But in reality, few distributors go on to achieve their goals. The drop-out rate is around 50 per cent and even for those who remain, the dreams go unfulfilled. Colin, a former Amway direct distributor from Hackney, decided to quit after becoming disillusioned. He has since received help from the Cult Information Centre to help him get over the experience.

"When you go out showing the plan, it's less about explaining the business and more about finding out what the person really wants out of life, then showing how Amway can help them achieve it. You tell people this can help their dreams come true. You explain that they are caught in a rut. That they will work 40 years and once they hit 65, they will be either be broke, dead or dead broke.

"If they are not money-minded, you put the emphasis on how much the money can help others - "you can give to charities and make a real difference; you can pay your parents back for all the work they put into bringing you up." Otherwise you just play on their greed. "You can have that big house in the country, the BMW, you can buy your daughter that pony for Christmas, you can take that two-week holiday in the Far East"."

Colin and his wife would go out showing the plan four or five nights a week, often driving hundreds of miles to see potential prospects. Although their network and sales volume grew, they still found they were spending far more on petrol, telephone calls and other expenses that they were making.

Then there was the cost of the 'system' itself. "We'd get a tape each week and a book each month. Then we'd be expected to attend weekly training meetings and monthly rallies and seminars. Although it was only a few pounds at a time, it really did start to add up."

Although he was losing money, Colin stuck with the system, mainly because of the encouragement of his tremendously wealthy upline Diamond. After two-and-a-half years, Colin eventually reached the direct level and found that, after expenses, he and his wife were making around £400 a month for a job that seemed to be taking up virtually all their spare time.

"My Diamond kept saying that one day I'd see how the business worked. Once I did, I realised I couldn't stay in it any more."

Colin's Diamond explained that his real wealth came from selling books and tapes and from organizing the meetings. "I'd always been told to ensure my entire downline were completely plugged into the system and that they went to every meeting. You're told that books and tapes are the tools you need to build a successful business but in fact we were just lying to people to line the pockets of the jewels above us. I didn't feel right about joining in with that so I left".

One problem is that the 'system' itself is nothing to do with Amway. It is run by top-level jewel distributors who, once they have enough people in their downline, branch out. They become known as 'black hats' and all the wealth that comes out of the books and tapes goes straight to them, not the corporation.

In 1985, Don Gregory, a former speechwriter for Amway co-founder Jay Van Andel, told Forbes magazine: "Recruits are brainwashed into spending a fortune on peripherals while consuming Amway products. They either lose their shirts or begin making money by getting enough people underneath to do the same". In the same issue a major Amway black hat, Dexter Yeager, whose downline includes the majority of Britain's distributors, admits that two-thirds of his income came from tapes and books.

The individual cost of training materials may be low - a mere £3.40 for a tape for example. But if the tape itself costs only £1 to produce and you have 7,000 in your downline as Colin's Diamond does, and they buy one a week, then that's a clear profit of £16,800 per week. £873,600 a year. The Yeager downline is believed to be in excess of 150,000.

In 1985, Amway, Yeager and another black hat, Bill Britt, were taken to court by two former distributors who alleged they had been brainwashed into buying books and tapes. The case was settled out of court in 1988 with no admission of liability from the corporation.

In order to benefit from the book, tape and seminar profits - the hidden business within the Amway business - you first have to reach at least the direct level and above, something that only a tiny proportion of all those who join Amway actually achieve. The company has admitted to Time Out that the number of directs and above in Britain is between 1 and 2 per cent of the total number of distributors. At the most, this amounts to between 700 and 1,400 people out of the 73,000 currently signed to Amway. According to Amway's hypothetical models of how a distributor's network would grow, a direct distributor would earn a minimum of £1000 per month.

However, even reaching the direct level is no guarantee of financial freedom. In 1982, the Amway Corporation was taken to court by the State of Wisconsin on a charge of deceptive business practice. Assistant Attorney Bruce Craig had examined the tax records of the 20,000 Amway distributors in the state to see how many were actually making the money they joined for.

He too found the number of direct distributors was around 1 per cent but far more startling was the revelation that within that 1 per cent, the average direct distributor was, after the deduction of business expenses, making a net income of minus \$918 per year, despite a personal Amway turnover of \$14,000 per year.

As a result of the subsequent court case, Amway is now obliged to disclose details of average gross incomes - though only in America.

Internal Amway documents obtained by Time Out show the average distributor income last year was just \$65 per month gross, a figure that has actually dropped from an average of \$76 three years ago.

Time Out put its questions about the chances of making money, the suggestion of cult-style tactics and the wealth being generated by book and tape sales to Amway which wrote back at length with descriptions of its philosophies.

It did, however, admit that it intends to begin monitoring all books and tapes issued by independent distributors in the near future. It denied being cult-like (though Time Out's question refers not to the corporation but to the techniques employed by the black hat groups), stating that because the company rewards individual achievement, its concept is the opposite of a cult.

As is the case with virtually all multi-level marketing companies, at least half of all Amway distributors will quit in any given year but they are more than replaced by eager new recruits, keen to make their dreams come true. But for those who fail to strike it rich, there is often a feeling of disillusionment. "They are constantly told that anyone can succeed with Amway, if they do not, they can only feel downtrodden", says a spokeswoman at FAIR. "They don't realise they have been in a group which is cultic, they blame themselves for failing".

And for those distributors who remain loyal to the company whether they make money or not, one of the most popular in-jokes must ring painfully true: "Hear the one about the woman who was married to an Amway distributor for 15 years but was still a virgin? All he did was sit at the end of the bed and talk about how great it was going to be".



ancient astronauts and Erich von Däniken's *Chariots of the Gods?*

The term 'ancient astronauts' designates the speculative notion that aliens are responsible for the most ancient civilizations on earth. The most notorious proponent of this idea is Erich von Däniken, author of several popular books on the subject. His *Chariots of the Gods? Unsolved Mysteries of the Past*, for example, is a sweeping attack on the memories and abilities of ancient peoples. Von Däniken claims that the myths, arts, social organizations, etc., of ancient cultures were introduced by astronauts from another world. He questions not just the capacity for memory, but the capacity for culture and civilization itself, in ancient peoples. Prehistoric humans did not develop their own arts and technologies, but rather were taught art and science by visitors from outer space.

Where is the proof for von Däniken's claims? Some of it was fraudulent. For example, he produced photographs of pottery that he claimed had been found in an archaeological dig. The pottery depicts flying saucers and was said to have been dated from Biblical times. However, investigators from *Nova* (the fine public-television science program) found the potter who had made the allegedly ancient pots. They confronted von Däniken with evidence of his fraud. His reply was that his deception was justified because some people would only believe if they saw proof ("The Case of the Ancient Astronauts," first aired 3/8/78, done in conjunction with BBC's *Horizon* and Peter Spry-Leverton)!

However, most of von Däniken's evidence is in the form of specious and fallacious arguments. His data consists mainly of archaeological sites and ancient myths. He begins with the ancient astronaut assumption and then forces all data to fit the idea. For example, in [Nazca](#), Peru, he explains giant animal drawings in the desert as an ancient alien airport. The likelihood that these drawings related to the natives' religion or science is not considered. He also frequently reverts to false dilemma reasoning of the following type: "*Either* this data is to be explained by assuming these primitive idiots did this themselves *or* we must accept the more plausible notion that they got help from extremely advanced peoples who must have come from other planets where such technologies as anti-gravity devices had been invented." His devotion to this theory has not dwindled, despite contrary evidence, as is evidenced by still another book on the subject, *Arrival of the Gods: Revealing the Alien Landing Sites at Nazca* (1998).

There have been many critics of von Däniken's notions, but Ronald Story stands out as the most thorough. Most critics of von Däniken's theory point

out that prehistoric peoples were not the helpless, incompetent, forgetful savages he makes them out to be. (They must have at least been intelligent enough to understand the language and teachings of their celestial instructors--no small feat!) It is true that we still do not know how the ancients accomplished some of their more astounding physical and technological feats. We still wonder how the ancient Egyptians raised giant obelisks in the desert and how stone age men and women moved huge cut stones and placed them in position in dolmens and passage graves. We are amazed by the giant carved heads on Easter Island and wonder why they were done, who did them, and why they abandoned the place. We may someday have the answers to our questions, but they are most likely to come from scientific investigation not pseudoscientific speculation. For example, observing contemporary stone age peoples in Papua New Guinea, where huge stones are still found on top of tombs, has taught us how the ancients may have accomplished the same thing with little more than ropes of organic material, wooden levers and shovels, a little ingenuity and a good deal of human strength. [Nova's "Secrets of Lost Empires"](#) made no appeal to alien teachers in the attempt to figure out how the ancient Egyptians might have raised a giant [obelisk](#), how the medieval warriors built their [catapults](#) and how & why the sculptors of [Easter Island](#) did what they did.

We have no reason to believe our ancient ancestors' memories were so much worse than our own that they could not remember these alien visitations well enough to preserve an accurate account of them. There is little evidence to support the notion that ancient myths and religious stories are the distorted and imperfect recollection of ancient astronauts recorded by ancient priests. The evidence to the contrary--that prehistoric or 'primitive' peoples were (and *are*) quite intelligent and resourceful--is overwhelming.

Of course, it is possible that visitors from outer space did land on earth a few thousand years ago and communicate with our ancestors. But it seems more likely that prehistoric peoples themselves were responsible for their own art, technology and culture. Why concoct such an explanation as von Däniken's? To do so may increase the mystery and romance of one's theory, but it also makes it less reasonable, especially when one's theory seems inconsistent with what we already know about the world. The ancient astronaut hypothesis is unnecessary. [Occam's razor](#) should be applied and the hypothesis rejected.

See related entries on [alien abductions](#), [the face on Mars](#), [the Nazca lines](#), [Sirius](#), [Zecharia Sitchin](#), [UFOs](#) and [Velikovsky](#).

further reading

[reader comments](#)

- [Chariots of Lies](#): the CorreX files by Paul Willis (The site is now known

as the **Correx Archives** due to legal threats from 20th Century Fox Alien Network for breach of copyright)

- [Nova - Hot Science](#)
- [Ancient Astronauts page](#) of Drs. Larry J. Zimmerman and Richard A. Fox, Jr. of the University of South Dakota
- [Sitchin's Twelfth Planet](#) by Rob Hafernik
- [Erich von Daniken's "Chariots of the Gods?": Science or Charlatanism?](#) by Robert Sheaffer

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Nazca lines



The Nazca lines are [geoglyphs](#) and geometric line clearings in the Peruvian desert. They were made by the Nazca people, who flourished between 200 BCE and 600 CE along rivers and streams that flow from the Andes. The desert itself runs for over 1,400 miles along the Pacific Ocean. The area of the Nazca art is called the [Pampa Colorada](#) (Red Plain). It is 15 miles wide and runs some 37 miles parallel to the Andes and the sea. Dark red surface stones and soil

have been cleared away, exposing the lighter colored subsoil, creating the "lines". There is no sand in this desert. From the air, the "lines" include not only lines and geometric shapes, but also depictions of [animals and plants in stylized forms](#). Some of the forms, including images of humans, grace the steep hillsides at the edge of the desert.

The Nazca lines are communal. Their creation took hundreds of years and required a large number of people working on the project. Their size and their purpose have led some to speculate that visitors from another planet either created or directed the project. [Erich von Däniken](#) thinks that the Nazca lines formed an airfield for alien spacecraft*, an idea first proposed by James W. Moseley in the October 1955 issue of *Fate* and made popular in the early sixties by Louis Pauwels and Jacques Bergier in *The Morning of the*



Magicians. If Nazca was an alien airfield, it must have been a very confusing airfield, consisting as it does of giant lizards, spiders, monkeys, llamas, dogs, hummingbirds, etc., not to mention the zigzagging and crisscrossing lines and geometric designs. It was very considerate of

the aliens to depict plants and animals of interest to the locals, even though it must have meant that navigation would be more difficult than a straight runway or a large clearing. Also, the airport must have been a very busy place, needing 37 miles of runway to handle all the traffic. However, it is unlikely spacecraft could have landed in the area without disturbing some of the artwork or the soil. There is no evidence of such disturbance.

The alien theory is proposed mainly because some people find it difficult to believe that a race of primitive "Indians" could have had the intelligence to conceive of such a project, much less the technology to bring the concept to fruition. The evidence points elsewhere, however. The Aztecs, the Toltecs, the [Inca](#), the Maya, etc., are proof enough that the Nazca did not need extraterrestrial help to create their art gallery in the desert.

In any case, one does not need a very sophisticated technology to create large figures, geometrical shapes, and straight lines, as has been shown by the creators of so-called [crop circles](#). The Nazca probably used [grids](#) for their giant geoglyphs, as their [weavers](#) did for their elaborate designs and patterns. The most difficult part of the project would have been moving all the stones and earth to reveal the lighter subsoil. There really is nothing mysterious about *how* the Nazca created their lines and figures.

Some think it is mysterious that the figures have remained intact for so many hundreds of years. However, the geology of the area solves that mystery.

Stones (not sand) comprise the desert surface. Rusted by humidity, their darkened color increases heat absorption. The resulting cushion of warm surface air acts as a buffer against the wind; while minerals in the soil help to solidify the stones. On the "desert pavement" thus created in this dry, rainless environment, erosion is practically nil - making for remarkable preservation of the markings.*

The mystery is *why*. Why did the Nazca engage in such a project involving so many people for so many years?

G. von Breunig thinks the lines were used for running footraces. He examined the curved pathways and determined that they were partially shaped by continuous running. Anthropologist Paul Kosok briefly maintained that the lines were part of an irrigation system, but soon rejected the notion as impossible. He then speculated that the lines formed a gigantic calendar. [Maria Reiche](#), a German immigrant and apprentice archaeologist to Julio Tello of the University of San Marcos, developed Kosok's theory and spent most of her life collecting data to show that the lines represent the Nazca's astronomical knowledge. Reiche identified many interesting astronomical alignments, which had they been known to the Nazca might have been useful in planning their planting and harvesting. However, there are so many lines going in so many different directions that *not* finding many with interesting astronomical alignments would have been miraculous.

modern anthropology and the lines

The Nazca lines became of interest to anthropologists after they were seen from the air in the 1930s. It is unlikely that a project of this magnitude was not religious in purpose. To involve the entire community for many centuries indicates the supreme significance of the site. Like pyramids, giant statues, and other monumental art, the Nazca art speaks of permanence. It says: we are here and we are not moving. These are not nomads, nor are they hunters and gatherers. This is an agricultural society. It is, of course, a pre-scientific agricultural society, who turned to magic and superstition (i.e., religion) to assist them with their crops. The Nazca had the knowledge to irrigate, plant, harvest, collect, distribute, etc. But the weather is fickle. Things might go smoothly for years, or even centuries, and then, in a single generation entire communities are forced to leave because of extended drought or because of floods or tidal waves, volcanic eruptions, earthquakes, fires, or whatever else Mother Nature might hurl their way.

Was this a site for worship? Was this the Mecca of the Nazca? a place of pilgrimage? Were the images part of rituals aimed at appeasing the gods or asking for help with the fertility of the people and the crops, or with the weather or with a good supply of [water](#)? That the figures could not be seen as those in the heavens might see them would not be that important for religious or magical purposes. In any case, similar figures to the giants at Nazca [decorate](#) the pottery found in nearby burial sites and it is apparent from their [cemeteries](#) that the Nazca were preoccupied with death. [Mummified remains](#) litter the desert, discarded by grave robbers. Was this a place for rituals aimed at bringing immortality to the dead? We don't know, but if this mystery is ever to be cleared up it will be by serious scientists, not by alienated pseudoscientific speculators molding the data to fit their extraterrestrial musings.



See related entries on [Erich von Däniken](#) and [sympathetic magic](#).

**Chariots of the Gods?* (1968), *Arrival of the Gods: Revealing the Alien Landing Sites at Nazca* (1998).

further reading

- [Nova - Hot Science](#)
- [Nazca - The Lines Mystery](#)
- [The Mysterious Nazca Lines](#)
- [Rosalind - Nazca Lines](#)
- [The lines of Peru](#)
- [Nazca](#)

- [Resources for South American Archaeology](#)
- [The Nasca Lines Project \(1996- \)](#)

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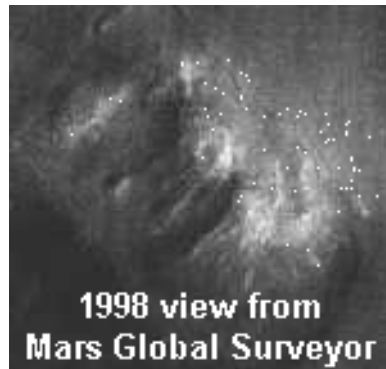
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[click here to see
the latest photo of
the "face" \(April 8,
2001\)](#)

the face on Mars

The face on Mars is the image of some photographs of the Cydonia region of Mars taken in 1976 by the Viking Orbiter. The image is most likely of a natural formation but some people see a face or a building and are convinced that it was constructed by intelligent beings.

According to [Gary Posner](#), the one most responsible for the view that the face on Mars is an alien construction is Richard C. Hoagland, author of *The Monuments of Mars: A City on the Edge of Forever* (1987).



NASA claims that the photos are just a play of light and shadow. Some took this explanation as a sure sign of a cover-up. Some engineers and computer specialists digitally enhanced the NASA images. This soon gave birth to the claim that the face was a sculpture of a human being located next to a city whose temples and fortifications could also be seen. Some began to wonder: were these built by the same beings who built the [ancient airports in Peru](#) and who were now communicating to us through elaborate symbols carved in wheat [crop circles](#)? Others took the wonder to the level of belief, based on the flimsiest of evidence and the grandest of imagination. Carl Sagan's more down-to-earth explanation for the face on Mars is that it is the result of erosion and winds and other natural forces (Sagan, 52-55). Such a view seems most reasonable under the circumstances.



NASA's Mars Odyssey orbiter sent back some more detailed pictures in July, 2002 that seems to slap the face into the ground with a group of other slapped faces. Much to the dismay of mystery mongers, NASA says that the Cydonia region is a "normal geologic feature with slopes and ridges carved by eons of wind and downslope motion due to gravity."[*](#)

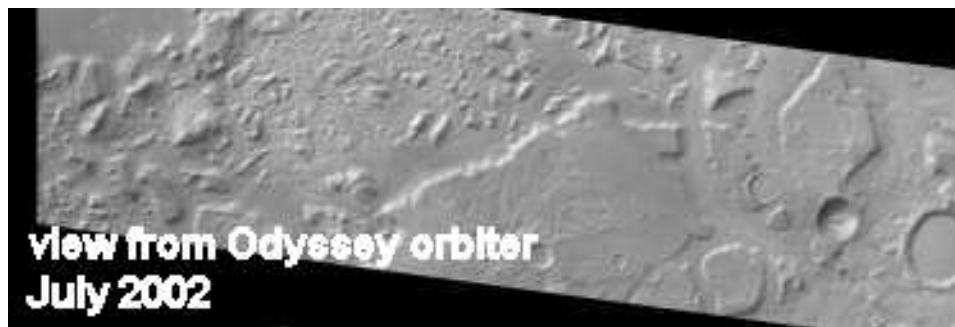


photo courtesy of NASA/JPL/Arizona State University

See related entries on [ancient astronauts](#), [apophenia](#), [Our Lady of Watsonville](#), [pareidolia](#), [Rorschach Ink Blot Test](#), [Sitchin](#), [subliminal](#), and [Velikovsky](#).

further reading

- [Unmasking the Face on Mars](#)
- [The Face Behind the "Face" on Mars: A Skeptical Look at Richard C. Hoagland](#) by Gary P. Posner *Skeptical Inquirer*, November/December 2000.
- [The Face on Mars: Unmasked by New Images](#) by Tony Phillips
- [The Real Story Behind Mysterious Space Photos](#) by Robert Roy Britt
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- [The New Face on Mars](#)
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- [Malin Space Science System "Face on Mars" page](#)
- [The Face and Other Unusual Objects on Mars](#) by Mark J. Carlotto
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The Dogon and Sirius

The Dogon are a people of about 100,000 who dwell in western Africa. According to Robert Temple (*The Sirius Mystery*), the Dogon had contact with some ugly, amphibious* extraterrestrials, the Nommos, some 5,000 years ago. The aliens came here for some unknown reason from a planet orbiting [Sirius](#) some 8.6 light years from earth. The alleged visitors from outer space seem to have done little else than give the earthlings some useless astronomical information.

One of Temple's main pieces of evidence is the tribe's alleged knowledge of Sirius B, a companion to the star **Sirius**. The Dogon are supposed to have known that Sirius B orbits Sirius and that a complete orbit takes fifty years. One of the pieces of evidence Temple cites is a sand picture made by the Dogon to explain their beliefs. The diagram that Temple presents, however, is not the complete diagram that the Dogon showed to the French anthropologists Marcel Griaule and Germaine Dieterlen, who were the original sources for Temple's story. Temple has either misinterpreted Dogon beliefs, or distorted Griaule and Dieterlen's claims, to fit his fantastic story.

Griaule and Dieterlen describe a world renovation ceremony, associated with the bright star Sirius (sigu tolo, "star of Sigui"), called sigui, held by the Dogon every sixty years. According to Griaule and Dieterlen the Dogon also name a companion star, po tolo "Digitaria star" (Sirius B) and describe its density and rotational characteristics. Griaule did not attempt to explain how the Dogon could know this about a star that cannot be seen without telescopes, and he made no claims about the antiquity of this information or of a connection with ancient Egypt.*

Temple lists a number of astronomical beliefs held by the Dogon that seem curious. They have a traditional belief in a heliocentric system and in elliptical orbits of astronomical phenomena. They seem to have knowledge of the satellites of Jupiter and rings of Saturn, among other things. Where did they get this knowledge, he asks, if not from extraterrestrial visitors? They don't have telescopes or other scientific equipment, so how could they get this knowledge? Temple's answer is that they got this information from amphibious aliens from outer space.

Afrocentrists, on the other hand, claimed that the Dogon could see Sirius B without the need of a telescope because of their special eyesight due to quantities of melanin (Welsing, F. C. 1987. "Lecture 1st Melanin Conference,

San Francisco, September 16-17, 1987"). There is, of course, no evidence for this special eyesight, nor for other equally implausible notions such as the claim that the Dogon got their knowledge from black Egyptians who had telescopes.

a terrestrial source?

Carl Sagan agreed with Temple that the Dogon could not have acquired their knowledge without contact with an advanced technological civilization. Sagan suggests, however, that that civilization was terrestrial rather than extraterrestrial. Perhaps the source was Temple himself and his loose speculations on what he learned from Griaule, who based his account on an interview with one person, Ambara, and an interpreter.

According to Sagan, western Africa has had many visitors from technological societies located on planet earth. The Dogon have a traditional interest in the sky and astronomical phenomena. If a European had visited the Dogon in the 1920's and 1930's, conversation would likely have turned to astronomical matters, including Sirius, the brightest star in the sky and the center of Dogon mythology. Furthermore, there had been a good amount of discussion of Sirius in the scientific press in the '20s so that by the time Griaule arrived, the Dogon may have had a grounding in 20th century technological matters brought to them by visitors from other parts of earth and transmitted in conversation.

Or, Griaule's account may reflect his own interests more than that of the Dogon. He made no secret of the fact that his intention was to redeem African thought. When the Belgian Walter van Beek studied the Dogon, he found no evidence they knew Sirius was a double star or that Sirius B is extremely dense and has a fifty-year orbit.

Knowledge of the stars is not important either in daily life or in ritual [to the Dogon]. The position of the sun and the phases of the moon are more pertinent for Dogon reckoning. No Dogon outside of the circle of Griaule's informants had ever heard of *sigu tolo* or *po tolo*... Most important, no one, even within the circle of Griaule informants, had ever heard or understood that Sirius was a double star (Ortiz de Montellano).*

According to Thomas Bullard, van Beek speculates that Griaule "wished to affirm the complexity of African religions and questioned his informants in such a forceful leading manner that they created new myths by [confabulation](#)." Griaule either informed the Dogon of Sirius B or "he misinterpreted their references to other visible stars near Sirius as recognition of the invisible companion" (Bullard).

The only mystery is how anyone could take seriously either the notion of amphibious aliens or telescopic vision due to melanin.

See **related entries** on [von Däniken](#), [Zecharia Sitchin](#) and [UFOs and extraterrestrials](#).

further reading

[reader comments](#)

- [CAN TALES OF SIRIUS BE SERIOUSLY?](#) by Jay Ingram
- [The Dogon Revisited](#) by Bernard R. Ortiz de Montellano
- [The Sirius Lie](#) by Filip Coppens (ignore the part about the Stargate Conspiracy)
- [Investigating the Sirius "Mystery"](#) by Ian Ridpath, *Skeptical Inquirer*, Fall 1978.

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Zecharia Sitchin and *The Earth Chronicles*

"...he's just another nut making a living selling books that treat folks to a tale they want to believe in."

---Rob Hafernik

Zecharia Sitchin, along with Erich [von Däniken](#) and Immanuel [Velikovsky](#), make up the holy trinity of [pseudohistorians](#). Each begins with the assumption that ancient myths are not myths but historical and scientific texts. Sitchin's claim to fame is announcing that he alone correctly reads ancient Sumerian clay tablets. All other scholars have misread these tablets which, according to Sitchin, reveal that gods from another planet (Niburu, which orbits our Sun every 3,600 years) arrived on Earth some 450,000 years ago and created humans by genetic engineering of female apes. Niburu orbits beyond Pluto and is heated from within by radioactive decay, according to Sitchin. No other scientist has discovered that these descendents of gods blew themselves up with nuclear weapons some 4,000 years ago. Sitchin alone can look at a Sumerian tablet and see that it depicts a man being subjected to radiation. He alone knows how to correctly translate ancient terms allowing him to discover such things as that the ancients made rockets. Yet, he doesn't seem to know that the seasons are caused by the earth's tilt, not to its distance from the sun.

Sitchin was born in Russia, was raised in Palestine, graduated from the University of London with a degree in economic history. He worked for years as a journalist and editor in Israel before settling in New York.

Sitchin, like Velikovsky, presents himself as erudite and scholarly in a number of books, including *The Twelfth Planet* (1976) and *The Cosmic Code* (1998). Both Sitchin and Velikovsky write very knowledgeably of ancient myths and both are nearly scientifically illiterate. Like von Däniken and Velikovsky, Sitchin weaves a compelling and entertaining story out of facts, misrepresentations, fictions, speculations, misquotes, and mistranslations. Each begins with their beliefs about ancient visitors from other worlds and then proceeds to fit facts and fictions to their basic hypotheses. Each is a master at ignoring inconvenient facts, making mysteries where there were none before, and offering their alien hypotheses to solve the mysteries. Their works are very attractive to those who love a good mystery and are ignorant of the nature and limits of scientific knowledge.

Sitchin promotes himself as a Biblical scholar and master of ancient languages, but his real mastery was in making up his own translations of Biblical texts to support his readings of Sumerian and Akkadian writings.

He's let us know he's going to twist the translations around to support his thesis. Indeed, a reader of Sitchin's book would do well to keep a couple of Bibles handy to check up on the verses Sitchin quotes. Many of them will sound odd or unrecognizable because they have been translated from their familiar form (this is made harder by the fact that Sitchin rarely tells you just which verse he is quoting). This would be much more acceptable if he wasn't using the twisted translations to support the thesis that led to the twisted translations (Hafernik).

Most of Sitchin's sources were obsolete. He received nothing but ridicule from scientific archaeologists and scholars familiar with ancient languages. His most charming quality seems to be his vivid imagination and complete disregard for established facts and methods of inquiry, traits that are apparently very attractive to some people.

Sitchin's ideas have been appropriated by Raël, another wise man, who has started his own religion ([Raëlian Religion](#)) around the idea that humans are the result of a DNA experiment by ancient visitors from outer space. Raël has even written a channeled book, dictated to him by extraterrestrials. It is called *The Final Message*. We can only hope it is.

See related entries on [alien abductions](#), [ancient astronauts](#), [Sirius](#), [the face on Mars](#), [UFOs](#) and [Velikovsky](#).

further reading

[reader comments](#)

- [Zecharia Sitchin's Errors - An Introductory Survey](#) by Michael S. Heiser
- [Sitchin's Twelfth Planet](#) by Rob Hafernik
- [Sitchin's Sumerian Astronomy Refuted](#) by Chris Siren
- [Zecharia Sitchin's ancient astronaut theories - a skeptical archive](#)
- [Counter-Culture page on Zecharia Sitchin](#)
- [Ancient Astronauts page](#) of Drs. Larry J. Zimmerman and Richard A. Fox, Jr. of the University of South Dakota
- [Where do we come from?](#)
- [Interview with Zecharia Sitchin](#)

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Immanuel Velikovsky's *Worlds in Collision*

Reading something they can understand, that seems to make sense, that presents itself as technically competent, non-scientists are easily gulled by fake science. --Henry H. Bauer

The less one knows about science, the more plausible Velikovsky's scenario appears.... --[Leroy Ellenberger](#)

In 1950, Macmillan Company published Immanuel Velikovsky's *Worlds in Collision*, a book which asserts, among many other things, that the planet [Venus](#) did not exist until recently. Some 3500 years ago in the guise of a gigantic comet, it grazed Earth a couple of times, after having been ejected from the planet Jupiter some indefinite time earlier, before settling into its current orbit. Velikovsky (1895-1979), a psychiatrist by training, does not base his claims on astronomical evidence and scientific inference or argument. Instead, he argues on the basis of ancient cosmological myths from places as disparate as India and China, Greece and Rome, Assyria and Sumer. For example, ancient Greek mythology asserts that the goddess Athena sprang from the head of Zeus. Velikovsky identifies Athena with the planet Venus, though the Greeks didn't. The Greek counterpart of the Roman Venus was Aphrodite. Velikovsky identifies Zeus (whose Roman counterpart was the god Jupiter) with the planet Jupiter. This myth, along with others from ancient Egypt, Israel, Mexico, etc., are used to support the claim that "Venus was expelled as a comet and then changed to a planet after contact with a number of members of our solar system" (Velikovsky 1972,182).

Furthermore, Velikovsky then uses his Venus-the-comet claim to explain several events reported in the Old Testament as well as to tie together a number of ancient stories about flies. For example,

Under the weight of many arguments, I came to the conclusion--about which I no longer have any doubt--that it was the planet Venus, at the time still a comet, that caused the catastrophe of the days of Exodus (181).

When Venus sprang out of Jupiter as a comet and flew very close to the earth, it became entangled in the embrace of the earth. The internal heat developed by the earth and the scorching gases of the comet were in themselves sufficient to make the vermin of the earth propagate at a very feverish rate. Some of the plagues [mentioned in Exodus] like the plague of the frogs...or of the locusts, must be ascribed to

such causes (192).

The question arises here whether or not the comet Venus infested the earth with vermin which it may have carried in its trailing atmosphere in the form of larvae together with stones and gases. It is significant that all around the world people have associated the planet Venus with flies (193).

The ability of many small insects and their larvae to endure great cold and heat and to live in an atmosphere devoid of oxygen renders not entirely improbable the hypothesis that Venus (and also Jupiter, from which Venus sprang) may be populated by vermin (195).

Who can deny that vermin have extraordinary survival skills? But the cosmic hitchhikers Velikovsky speaks of are in a class all of their own. How much energy would have been needed to expel a "comet" the size of Venus and how hot must Venus have been to have only cooled down to its current surface temperature of 750° K during the last 3,500 years? What evidence is there that any locust larvae could survive such temperatures? To ask such questions would be to engage in scientific discussion, but one will find very little of that sort of discussion in *Worlds in Collision*. What one finds instead are exercises in comparative mythology, philology, and theology, which together make up Velikovsky's planetology. That is not to say that his work is not an impressive exercise and demonstration of ingenuity and erudition. It is very impressive, but it isn't science. It isn't even history.

What Velikovsky does isn't science because he does not start with what is known and then use ancient myths to illustrate or illuminate what has been discovered. Instead, he is indifferent to the established beliefs of astronomers and physicists, and seems to assume that someday they will find the evidence to support his ideas. He seems to take it for granted that the claims of ancient myths should be used to support or challenge the claims of modern astronomy and cosmology. In short, like the [creationists](#) in their arguments against evolution, he starts with the assumption that the Bible is a foundation and guide for scientific truth. Where the views of modern astrophysicists or astronomers conflict with certain passages of the Old Testament, the moderns are assumed to be wrong. Velikovsky, however, goes much further than the creationists in his faith; for Velikovsky has faith in *all* ancient myths, legends, and folk tales. Because of his uncritical and selective acceptance of ancient myths, he cannot be said to be doing history, either. Where myths can be favorably interpreted to fit his hypothesis, he does not fail to cite them. The contradictions of ancient myths regarding the origin of the cosmos, the people, etc. are trivialized. If a myth fits his hypotheses, he accepts it and interprets it to his liking. Where the myth doesn't fit, he ignores it. In short, he seems to make no distinction between myth, legends, and history. Myths may have to be interpreted but Velikovsky treats them as presenting historical

facts. If a myth conflicts with a scientific law of nature, the law must be revised.

If, occasionally, historical evidence does not square with formulated laws, it should be remembered that a law is but a deduction from experience and experiment, and therefore laws must conform with historical facts, not facts with laws (11).

One of the characteristics of a reasonable explanation is that it be a likely story. To be reasonable, it is not enough that an explanation simply be a possible account of phenomena. It has to be a likely account. To be likely, an account usually must be in accordance with current knowledge and beliefs, with the laws and principles of the field in which the explanation is made. An explanation of how two chemicals interact, for example, would be unreasonable if it violated basic principles in chemistry. Those principles, while not infallible, have not been developed lightly, but after generations of testing, observations, refutations, more testing, more observations, etc. To go against the established principles of a field puts a great burden of proof on the one who goes against those principles. This is true in all fields which have sets of established principles and laws. The novel theory, hypothesis, explanation, etc., which is inconsistent with already established principles and accepted theories, has the burden of proof. The proponent of the novel idea must provide very good reasons for rejecting established principles. This is not because the established views are considered infallible; it is because this is the only reasonable way to proceed. Even if the established theory is eventually shown to be false and the upstart theory eventually takes its place as current dogma, it would still have been unreasonable to have rejected the old theory and accepted the new one in the absence of any compelling reason to do so.

the scientific community's response to Velikovsky

Velikovsky was bitterly opposed by the vast majority of the scientific community, but the opposition may have been elicited mainly because of his popularity with "the New York literati" (Sagan 1979, 83). It is doubtful that many scientists even read Velikovsky, or read very much of *Worlds in Collision*. A knowledgeable astronomer and physicist would recognize after a few pages that the work is [pseudoscientific](#) twaddle. But the New York literary world considered Velikovsky a genius on par with "Einstein, Newton, Darwin and Freud" (Sagan, *ibid.*). To the scientific world it might be more accurate to say he was a genius on par with [L. Ron Hubbard](#). A number of scientists even threatened to boycott Macmillan's textbook division as a sign of their disgust that such twaddle should be published with such fanfare, as if the author were a great scientist. According to Leroy Ellenberger, "when the heat was applied by professors who were returning Macmillan textbooks unopened in protest and declining to edit new textbooks Macmillan gave the

book over to Doubleday, which had no textbook division."

Velikovsky is certainly *ingenious*. His explanations of parallels among ancient myths are very entertaining, interesting and apparently plausible. His explanation of universal collective amnesia of these worlds in collision is highly amusing and equally improbable. Imagine we're on earth 3,500 years ago when an object about the same size as our planet is coming at us from outer space! It whacks us a couple of times, spins our planet around so that its rotation stops and starts again, creates great heat and upheavals from within the planet and yet the most anyone can remember about these catastrophes are things like "...and the sun stood still" [*Joshua* 10: 12-13] and other stories of darkness, storms, upheavals, plagues, floods, snakes and bulls in the sky, etc. No one in ancient times mentions an object the size of earth colliding with us. You'd think someone amongst these ancient peoples, who all loved to tell stories, would have told their grandchildren about it. Someone would have passed it on. But no one on earth seems to remember such an event.

Velikovsky explains why our ancestors did not record these events as they occurred in a chapter entitled "A Collective Amnesia." He reverts to the old Freudian notion of [repressed memory](#) and neurosis. These events were just too traumatic and horrible to bear, so we all buried the memory of them deep in our [subconscious](#) minds. Our ancient myths are neurotic expressions of memories and [dreams](#) based on real experiences.

The task I had to accomplish was not unlike that faced by a psychoanalyst who, out of disassociated memories and dreams, reconstructs a forgotten traumatic experience in the early life of an individual. In an analytical experiment on mankind, historical inscriptions and legendary motifs often play the same role as recollections (infantile memories) and dreams in the analysis of a personality (12).

The typically unscientific theories and fanciful explanations of [psychoanalysis](#) seem even less credible when applied to the entire population, yet to the New York literati, in love as they were with all things Freudian, speculations such as these guaranteed one's genius.

It is not surprising that when one thumbs through any recent scientific book on cosmology, no mention is made of Velikovsky or his theories. His disciples blame this treatment of their hero as proof of a conspiracy in the scientific community to suppress ideas which oppose their own. Even now, more than fifty years later, after all of his major claims have been rejected or refuted, Velikovsky still has his disciples who claim he is not being given credit for getting at least some things right. However, it does not appear that he got anything of importance right. For example, there is no evidence on earth of a catastrophe occurring around 1500 B.C.E. Former Velikovsky disciple Leroy Ellenberger notes that

the Terminal Cretaceous Event 65 million years ago, whatever it was, left unambiguous worldwide signatures of iridium and soot. The catastrophes Velikovsky conjectured within the past 3500 years left no similar signatures according to Greenland ice cores, bristlecone pine rings, Swedish clay varves, and ocean sediments. All provide accurately datable sequences covering the relevant period and preserve no signs of having experienced a Velikovskian catastrophe.*

Current disciples think Velikovsky should get credit for anticipating catastrophism of the type that ended the reign of the dinosaurs some 65 million years ago. Critic David Morrison thinks otherwise.

Velikovsky focuses narrowly on encounters between the Earth and planets -- Mars and Venus. While he refers to Venus being accompanied by debris, the dominant agents of his catastrophes are tidal, chemical, and electrical interactions between planets, not meteoritic impacts. Remarkably, Velikovsky did not even accept (let alone predict) that the lunar craters are the result of impacts -- rather, he ascribed them to lava "bubbles" and to electric discharges. I see nothing in his vision that relates to our current understanding of interplanetary debris and the role of impacts in geological and biological evolution. I conclude that Velikovsky was fundamentally wrong in both his vision of planetary collisions (or near collisions) and in his failure to recognize the role of smaller impacts and collisions in solar system history.

If anything, says Morrison, "Velikovsky with his crazy ideas tainted catastrophism and discouraged young scientists from pursuing anything that might be associated even vaguely with him" (Morrison 2001, 70). Morrison polled 25 leading contemporary scientists who have played a significant role in the development of the "new catastrophism" and not one thought that Velikovsky had had any significant *positive* influence on "the acceptance of catastrophist ideas in Earth and planetary science over the past half-century." Nine thought he had had a negative influence (Morrison, *ibid.*).

Morrison points out several other misleading claims about Velikovsky being right. For example, Velikovsky was right that Venus is hot but wrong in how he came to that conclusion. He thought it was because Venus is a recent planet violently ejected from Jupiter and having traveled close to the sun. Venus is hot because of the greenhouse effect, something Velikovsky never mentioned. As to the composition of the atmosphere of Venus, Velikovsky thought it was hydrogen rich with hydrocarbon clouds. NASA put out an erroneous report in 1963 that said Mariner 2 had found evidence of

hydrocarbon clouds. In 1973 it was determined that the clouds are made mainly of sulfuric acid particles. Velikovsky was also right about Jupiter issuing radio emissions, but wrong as to why. He thought it was because of the electrically charged atmosphere brought on by the turbulence created by the expulsion of Venus. The radio emissions, however, are not related to the atmosphere but to "Jupiter's strong magnetic field and the ions trapped within it" (Morrison 65).

One of the few scientists to criticize Velikovsky's work on scientific grounds was Carl Sagan (Sagan 1979, 97), who was criticized even by Velikovsky's opponents for committing fallacies, making errors, and being intentionally deceptive in his argumentation. Henry Bauer does not even mention Sagan in his lengthy entry on Velikovsky in the *Encyclopedia of the Paranormal* (Prometheus 1996), unless he is making an oblique reference to Sagan when he writes about "some sloppy or invalid technical discussions by critics purporting to disprove Velikovsky's ideas." Whether Velikovsky's critics were fair-minded or not, there can be no denying the scientific indifference and incompetence of Velikovsky. He seemed satisfied that his study of myths established events which science must explain, regardless of whether those events clashed with the beliefs of the vast majority of the scientific community. In this he is like L. Ron Hubbard proposing *engrams*, which require [cellular memory](#), while not indicating that he was aware that such a hypothesis needed to be explained in light of current scientific knowledge about memory, the brain, etc. Both are like the so-called "creation scientists" who would create science anew if needed to justify the truth of their myths.

The essence of Velikovsky's unreasonableness lies in the fact that he does not provide scientific evidence for his most extravagant claims. His claims are based on assuming cosmological facts must conform to mythology. In general, he offers no support for the plausibility of his theory beyond an ingenious argument from comparative mythology. Of course, his scenario is logically possible, in the sense that it is not self-contradictory. To be scientifically plausible, however, Velikovsky's theory must provide some compelling reason for accepting it other than the fact that it helps explain some events described in the Bible or makes Mayan legends fit with Egyptian ones.

See related entries on [apophenia](#), [Erich von Däniken](#), and [Zecharia Sitchin](#).

further reading

[reader comments](#)

- [Transcripts of the Morning and Evening Sessions of the A.A.A.S.](#)

[Symposium on "Velikovsky's Challenge to Science" held on February 25, 1974.](#) Transcribed and Edited by Lynn E. Rose

- [Velikovsky's Address to the 1974 A.A.A.S. symposium](#)
- ["An Antidote to Velikovskian Delusions"](#) by Leroy Ellenberger
- [Top Ten Reasons Why Velikovsky is Wrong About Worlds in Collision](#) by Leroy Ellenberger
- [A lesson from Velikovsky](#) by Leroy Ellenberger
- [Worlds Still Colliding](#) by Leroy Ellenberger
- [Catastrophism](#) page of Phib Burns
- ["Sitchin's Twelfth Planet"](#) by Rob Hafernik
- [Biography of Velikovsky](#)
- [Velikovsky page](#)
- [Ted Holden's Catastrophism Page](#) He calls this stuff "an emerging science"

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reader comments:

ancient astronauts and Erich von Däniken's *Chariots of the Gods*

12 Dec 1998

These stones were found in Peru after a river had changed course...I believe the name is Ica or Ika but anyway, these stones have detailed depiction's of dinosaurs, heart operations, a man watching the heavens with a telescope...literally thousands of these stones that I believe to be the depiction's of life in an advanced society that's now lost to history... so I believe Erich von Daniken was not taken to any cleaners...these stones exist.

Mark

reply: See the new entry on [the Ica stones](#).

Mark's reply:

..Oh please, this stuff again?

The existence of a superior technology existed thousands of years ago and the physical evidence supports that....whether Von Daniken is in the picture or not...you can be skeptical till the sun turns to dust and Earth freezes into oblivion...it's amazing how skeptics have it all figured out, but no evidence to support it....end of story.

reply: It's nice to see that Mark has thought this through to the end.

6 Nov 1998

Robert, I just read your entry regarding Erich Von Daniken. Regarding the pottery that he claimed was ancient, you wrote, "His reply was that his deception was justified because some people would only believe if they saw proof!"

I remember this episode of Nova vividly and while Von Daniken is a total fraud and liar, this was not what happened. I believe you were confusing his response with his response when confronted by the fact he never ventured into the cave he described in "Gold of the Gods."

What really happened is that the local carver, Bacilio, carved the rocks with heart transplants and the like for the local Mexican museum. Von Daniken claimed he found the rocks in the museum and asked the curator if they were for real. Von Daniken claims the curator answered, "Yes. Absolutely." By the time Nova caught up with the museum, the curator had died. But in fact, the rocks were donated by Bacilio. Bacilio even showed Nova the handwritten letter he received from the curator and it was written up in the local newspaper. So either Von Daniken was taken to the cleaners by the local curator or Von Daniken was lying again. I suspect the latter.

Pierre Stromberg
Pacific Northwest Skeptics

reply: I don't trust my memory and have no copy of the show to check. I will try to find a copy, however. In the meantime, continue distrusting von Däniken.

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vitalism

Vitalism is the metaphysical doctrine that living organisms possess a non-physical inner force or energy that gives them the property of life.

Vitalists believe that the laws of physics and chemistry alone cannot explain life functions and processes. Vitalism is opposed to [mechanistic materialism](#) and its thesis that life emerges from a complex combination of organic matter.

The vitalistic principle goes by many names: [chi or qi](#) (China) [prana](#) (India and [therapeutic touch](#)), [ki](#) (Japan); Wilhelm Reich's [orgone](#), Mesmer's [animal magnetism](#), [Bergson's élan vital](#) (vital force), etc. American advocates much prefer the term *energy*. Many kinds of alternative therapies or *energy medicines* are based upon a belief that health is determined by the flow of this alleged energy. For examples, see [Ayurvedic medicine](#), [therapeutic touch](#), [reiki](#), and [qigong](#).

further reading

- [Alternative Medicine and the Laws of Physics](#) by Robert L. Park

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 [vinyl vision](#)

[von Däniken](#) 

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[Survey: Vast majority of Americans believe in angels](#)

angels

Angels are bodiless, immortal [spirits](#), limited in knowledge and power. God created angels to worship Him. Not all God's angels acted angelically, however. Some angels, led by [Satan](#), rebelled against a life of submission, and were cast out of Heaven. These bad angels were sent to Hell and are known as devils.

Not all angels are created equal. From top to bottom, the celestial hierarchy includes seraphim, cherubim, thrones; dominions, virtues, powers; principalities, archangels, and angels. Angels have different functions. Some do nothing but worship their Lord. Others are sent to deliver messages to creatures on earth. Some are sent as protectors of earthlings. Still others are sent to do battle with devils, who are viewed as initiators of evil temptations.

Even though angels are spirits and devoid of a physical nature, believers in angels have had no problem depicting and describing them. Angels, say their advocates, are invisible but can take the form of visible things. Angels are usually depicted with wings and looking like human adults or children. The wings are undoubtedly related to their work as messengers from **God**, who lives in the sky. The anthropomorphizing is understandable. Depiction enhances belief. But a *bodiless* creature cannot be depicted. A depiction of a creature of less than human stature would be undignified and unworthy of celestial creatures. Nevertheless, it is puzzling how a *bodiless* creature thinks and feels. To talk of a spirit as a *non-bodily creature* seems to be akin to talking of a "round square." Trying to imagine thinking or feeling occurring independently of a body is like trying to imagine the spherical shape of a ball occurring independently of the ball.



Since angels are invisible but capable of taking on visible forms, it is understandable that there have been many "sightings." Literally anything *could* be an angel and any experience *could* be an angel-experience. The existence of angels cannot be disproved. The down side of this tidy picture is that angels cannot be proved to exist, either. Everything that *could* be an angel could be something else. Every experience that *could* be due to an angel could be due to something else. Belief in angels, angel sightings and angel experiences is entirely a matter of faith.

Even if they exist only in the imagination, however, angels can be very useful. They can serve as monitors of behavior and protectors of children. A parent can try to control a child's behavior by convincing the child that an angel is

always watching over him or her. The angel is presented as being a kind of guardian, but the child will hopefully realize that the angel is also keeping track of all deeds, good and bad, even those done when mommy and daddy aren't around. The guardian angel is a comforting and versatile concept, and is the basis for many myths. Much entertainment in books, films and television programs is based on the concept of the guardian angel, often transformed into a superhuman master of occult powers.

Traditional religionists are not the only ones who love angels. New Age mythmakers have made an industry out of angels. Dozens of books connecting angels with everything from guidance in daily life to talking to the dead to psychic healing are published every year. Sales of angel figurines and other material products are brisk. As one [lofty soul](#) put it: "Gently guided by angels, we nurture and cherish the creative soul that heals itself."

See **related entries** on [angel therapy](#), [astral projection](#) and [souls](#).

further reading

[reader comments](#)

- [angels](#) - *Catholic Encyclopedia*

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[ancient astronauts](#)

[angel therapy](#)

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soul or spirit

A soul or spirit is a non-physical entity capable of perception and self-awareness. Souls are often believed to be immortal.

If ever there were an entity invented for human wish-fulfillment, the soul is that entity. As Thomas Hobbes pointed out, the concept of a non-substantial substance is a contradiction. It is not possible to imagine a non-physical entity having life and perception. Even believers in souls always imagine them as being like human shaped clouds or fogs. It is a delusion to believe that the concept of soul is conceivable. Yet, billions of people have believed in a non-spatial perceiver which can travel through space and perceive and interpret vibrations and waves in the air without any sense organs.

Work done by philosophers and psychologists based on the assumption of a non-physical entity, which somehow inhabits and interacts with the human body, has not furthered human understanding of the working of the mind. Instead, it has furthered superstition and ignorance while hindering the development of any real and useful knowledge about the human mind. More promising is the work of those who see consciousness in terms of brain functioning and who try to treat 'mental' illness as primarily a physical problem. Two vast industries have been made both possible and lucrative by this belief in a non-entity in need of treatment from experts in non-entities: religion and [psychology](#). A third industry, philosophy, also flourishes in great part due to the concept of soul: a good many philosophers write books and articles based on the assumption of the existence of spirits, while a good many others make a living writing refutations and criticisms of those books and articles. It seems that the skeptic and the true believer need each other!

See **related entries** on [astral projection](#), [dualism](#), [materialism](#), and [mind](#).

further reading

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Satan

Satan is the adversary of God. Thus, Satan is evil personified. Many followers of the Bible consider Satan to be a real being, a spirit created by God. Satan and the other spirits who followed him rebelled against God. They were cast out from Heaven by their Creator. Theologians might speculate as to why the Almighty did not annihilate the "fallen angels," as He is said to have done to his other creations when they failed to be righteous (save [Noah](#) and his family, of course). Satan was allowed to set up his own kingdom in Hell and to send out devils to prowl the earth for converts. The demonic world seems to have been allowed to exist for one purpose only: to tempt humans to turn away from God. Why God would allow Satan to do this is explained in the *Book of Job*. When Job asks why God let Satan torment him the answer is blunt and final: *Hath thou an arm like the Lord?* The story of Job is interpreted in many different ways by theologians but my interpretation is that nobody knows why God lets Satan live and torment us. God is God and can do whatever He wants. *Ours is not to question why, ours is but to do and die.*

Satan, being a spirit, is neither male nor female. However, like his Creator, Satan is usually referred to as a masculine being. Many believe that Satan, or the Devil as he is often called, can "possess" human beings. Possession is bodily invasion by the devil. The Catholic Church still performs [exorcisms](#) on those considered to be possessed. Jesus is said to have cast out demons, i.e., performed exorcisms, and the Church considers itself to have been given this same power by Jesus. Throughout the centuries, many pious religious people have erroneously considered those with certain mental or physical illnesses to be possessed by Satan.

More frequent than outright possession, however, has been the accusation of being in consort with the devil. Satan is believed to have many powers, among them the power to manifest himself in human or animal form. The consorting has been recorded as often being purely physical and mostly sexual. For most of the history of Christianity there are reports of Satan having sex with humans, either as an incubus (male devil) or succubus (female devil). [Witches](#) and [sorcerers](#) were thought by many to be the offspring of such unions. They are considered especially pernicious because



From the frontispiece of Paul Carus's *The History of the Devil and the Idea of Evil* (1900)

they inherit some of the devil's powers.

According to Carl Sagan, accounts of diabolical intercourse are common cultural phenomena:

Parallels to incubi include Arabian [djinn](#) [jinn], Greek satyrs, Hindu bhuts, Samoan hotua poro, Celtic dusii... (Sagan 1995, 124).

However, as a child being instructed in the ways of Satan by Dominican sisters, stories of nuns being raped by incubi in a priest's clothing were assuredly not told. The Devil was there to tempt us to sin, pure and simple. He was not there to have sex with us or engage in reproductive experimentation or breed a race of witches and magi. To be sure, his main temptations would be sexual. There was no doubt that He spent a lot of time using girls to tempt boys into impure thoughts and deeds. He would invade our minds continuously during adolescence, planting desires for sexual experiences too evil to be mentioned much less performed. I suppose, to be fair, the girls should have been taught to be wary of boys trying to get them to yield to sexual temptation and that we would use every trick in the devil's arsenal to get them to go "all the way." But the girls were taught that *they* were the temptresses and were therefore the ones who needed to keep from harming the boys with their female charms. We were taught to pray constantly, implore the intercession of the saints and the Holy Mother of God, that they might give us protection against the snares of Satan. It must have occurred to many observers that the fear of Satan seems very much like fear of our own sexuality.

innocent angels

For all the instruction we were given on the Evil One, I don't remember ever being taught about Pope Innocent VIII and his persecution of witches and heretics. The Pope proclaimed in a Bull that "evil angels," i.e., devils, were having sex with many human men and women. He was not the first to have made this claim. Others before him, such as Thomas Aquinas, had explored this territory in great detail. Thomas reminds us that since the devil is not human, he can't produce human seed. So, he must transform himself into a woman, seduce a man, keep the seed, transform into a male, seduce a woman and transfer the seed. Something of the devil is captured by the seed along the way, so the offspring are not normal. Apparently it took Satan a long time to figure out that if he wanted to control the world, the best way to do it would be to breed with humans. Invading our bodies would be more efficient and effective than trying to invade our minds. But the Pope and many other pious men had a plan to exterminate the diabolical offspring: they would torture and burn them all! They would fight fire with fire! The Devil would not outdo them. In fact, the sadistic and monstrous behavior of the holy and pious inquisitors is almost enough to make a skeptic believe in Satan. The

inquisitors were nothing short of diabolical.

One of the more interesting aspects of Satanology is the recurring theme of humans making a pact with the devil. The Faust legend is the best-known of these: in exchange for one's soul, Satan will bestow one with wealth or power for a specified time. In most versions of the story, Faust tricks the devil and avoids payment. In the original, the devil mutilates and kills Faust at the end of the contract. His brains are splattered on the walls of his room, his eyes and teeth lay on the floor and his corpse rests outside on a dunghill (Smith, 269).

Today, there are still those who believe Satan is a real being, but we hear few stories of incubi and succubi any more. The closest thing we have to such stories are [alien abduction accounts](#) and [star children](#). Fortunately, for today's alien abduction victims with similar tales of sexual experimentation--the devil being replaced with aliens from outer space--there is no equivalent to the medieval Church to persecute, torture or exterminate them.

It is interesting, though, that most of these murderers and torturers feel some need to at least appear as if they are doing good while they commit their horrors. What drives the terrorist or ethnic cleanser today to their abominations, or the witch hunters to their destruction of families, seems to be the same forces that drove the pious enforcers of the [Inquisitions](#). Their behavior is almost enough to make a skeptic think that maybe Satan does exist--in the souls of these good people fighting for their noble causes.

From a philosophical perspective, the universal belief in evil demons is based on the need for an explanation of the enormous quantity of moral and physical evil pervading human existence for our entire history. I suppose, too, that devils in some way serve to excuse our own evil actions and mitigate our sense of responsibility for the harm we do. Psychologically, demons may well be a projection of ourselves, the worst part of our nature or the most feared part of our own nature. From a literary perspective, demons must exist. If they didn't, we'd have to invent them. They seem essential to so much of our storytelling. More essential, perhaps, than their goodly counterparts.

the waning of Satan's power



As the power of the Christian Church has waned, so too has the power of Satan. It is no accident that Satan reached the peak of his career at the same time the Church did, during the thirteenth century. During the Middle Ages, the Devil was said to have built Hadrian's wall between Scotland and England, moved huge stones to construct megalithic stone circles and dolmens, build bridges such as that at Saint-Cloud and the Pont de Valentre at Cahors, for the price of the soul of the first one who crossed the

bridge, etc. Satan could perform magic, but it must be remembered that the Christian religion is basically a religion of magic, of sacraments which protect one from Satan and which change bread and wine into Christ, of miracles which contravene the natural order for good or ill, of resurrection from the dead and of the promise of eternal life. Satan represents the obverse of that order: black magic, pacts with the devil, wonders done contravening the natural order, the promise of eternal youth and wondrous powers. The Satanic Order was the creation of the Church, necessary to establish its own power over the world. Heretics, witches and sorcerers were a threat to the world dominion of the Church. They had to be eradicated. As the enemies of the Church grew more numerous and more powerful, so did the reign of terror grow and so did the power of the Church get established more and more firmly.

As the power of Christianity waned as the dominant social and political force in western culture, so too did the power of Satan. By the eighteenth century, in Europe at least, witch and heretic burnings had all but ceased. Today, most of us in the Christian world would consider it primitive and barbaric to suggest that anyone be hounded or killed for communing with Satan. Even those who are allegedly doing evil in the name of Satan are usually pursued for the evil they do, not for their alleged association with the devil. It is likely that most police officers, if they had to deal with crimes committed by Satan worshippers, would view the criminals as deluded rather than as really communing with otherworldly beings.

If the rise of modern science had anything to do with the fall of the Christian Church from its position of supreme influence in western culture, then modern science can take partial credit for the exorcism of Satan from western consciousness. Of course, the Devil is not dead yet but he gets his power from God, and as God's power wanes so does Satan's. Someday, perhaps, both God and Satan will become impotent strangers to the human imagination. But don't count on it. Many theists today believe that the evils of today's world, and they are many as we all know, are due to the rise of Satan and the decrease of religious influence. If they had their way, we would all be praying more and working against the snares of the devil. I, however, think we have more to fear from these pious people than we do from the Devil or his admirers. Some might even go so far as to identify these pious advocates of constitutional amendments for prayer in schools as devils in disguise. I don't think so, though when you have God's children murdering people at abortion clinics, there really doesn't seem to be much need for Satan. In fact, if Satan and his crew returned to earth they'd find that all the good jobs for devils have been taken by the pious of the earth.

Finally, there are the modern day Satanists who find solace and power in occult [magick](#), but especially in anything anti-Christian. They draw their inspiration from the great works of imagination in art, literature, and policy created primarily by pious Christians in their zealous wars against their enemies, but also created by pre-Christian cults such as the Egyptian cult of

Set or by non-Christian occultists such as [Aleister Crowley](#) and [Anton LaVey](#). Today's Satanists have been blamed by pious Christians for [ritual murders of children](#), mutilation and sacrificial killings of animals, writing [backwards messages](#) on musical recordings instructing people to kill, sending [subliminal](#) or secret messages through diabolical symbols on pizza boxes or soap wrappers, causing the general decay of morals and civilization as we know it, etc. The Satanists deny it. The evidence is not very strong that the Satanists are either as evil or as powerful as their enemies say they are. There is strong evidence for the strength and wickedness of the pious. Witness their witch-hunts in recent years against child care workers and parents and relatives of children. The evidence is strong that the pious have frequently and unjustly accused many of [satanic ritual abuse](#) of children. And they have been aided in the witch-hunt by devoted [therapists](#) and [pious police and prosecutors](#).

See **related entries** on [magick](#), [miracles](#), [pagans](#), [wicca](#) and [witches](#).

further reading

[reader comments](#)

- [Satanic Ritual Abuse \(SRA\)](#) The Ontario Center for Religious Tolerance Page on the new witch hunt for satanic abusers of children
- ["The Hard Facts About Satanic Ritual Abuse,"](#) by Bob and Gretchen Passaintino
- [witch-hunt Links](#)
- [The Temple of Set](#) Satanists who believe in Satan as "a metaphysical being;" they accept both Visa and Master Card, but not American Express.
- [The Church of Satan](#) Satanists who don't believe in Satan as a real being; founded in 1966 by Anton LaVey in San Francisco.
- [Analysis Of The Church of Satan: The Emperor's New Religion](#) by Ole Wolf

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[Hill, Frances. *A Delusion of Satan - The Full Story of the Salem Witch Trials* \(New York: Doubleday, 1995\).](#)

[Sagan, Carl. *The Demon-Haunted World - Science as a Candle in the Dark*, ch. 7 "The Demon-Haunted World," \(New York: Random House, 1995\).](#)

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Last updated 08/09/02



[Sasquatch](#)

[satanic ritual abuse](#)

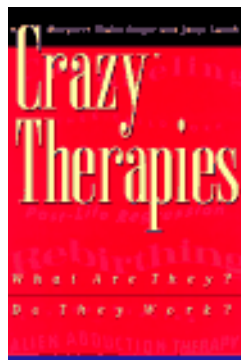


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angel therapy

Angel therapy is a type of [New Age Therapy](#) based on the notion that communicating with [angels](#) is the key to healing. Angel therapists believe they facilitate healing by helping their patients get in touch with angels who will guide the patient in the right direction.

Susan Stevenson, a hypnotherapist who practices [past life regressive therapy](#), sees angels everywhere.

My life seems to be teeming with angelic connections, and the momentum is building. Have you noticed this in your own life? Angelic reminders that they are with us- 'whispers' in our ear, 'taps' on the shoulder, brushes of air across your skin or changes in air pressure, 'flutters' from deep inside, glints of light and color- all these gentle hints to pay closer attention to their presence. Think back- have you been paying attention, listening, responding? I know I certainly have been. Doreen Virtue, Ph.D., in her newest book "Angel Therapy", says that this increased activity is directly related to the approaching millennium.

I assume Dr. Virtue is referring to the increased activity of New Age [millennial](#) thinkers whose presence is growing, whose momentum is building, and whose deep flutterings continue to slap reason in the face while the candle in the dark gets dimmer and dimmer.

further reading

- [Interview with Doreen Virtue](#)

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[angels](#)

[animal quackers](#)



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astral projection

Astral projection is a type of [out-of-body experience \(OBE\)](#) in which the [astral body](#) leaves its other six bodies and journeys far and wide to anywhere in the universe. The notion that we have seven bodies (one for each of the seven planes of reality) is a teaching of theosophist [Madame Blavatsky](#). On its trips, the astral body perceives other astral bodies rather than their physical, etheric, emotional, spiritual, etc. bodies. In an ordinary OBE, such as [remote viewing](#) or the out-of-body [near-death experience](#), there is a separation of a person's consciousness from his or her body. In the near-death out-of-body experience, there may be the experience of hovering above and perceiving one's body and environs, and hearing conversations of surgeons or rescue workers tinkering with one's body. In astral projection, it is the astral body, not the soul or consciousness, that leaves the body. The astral body, according to Madame Blavatsky, is the one that has an [aura](#). It is also the seat of feeling and desire, and is generally described as being connected to the physical body during astral projection by an infinitely elastic and very fine silver cord, a kind of cosmic umbilical cord or Ariadne's thread.

There is scant evidence to support the claim that anyone can project their mind, soul, psyche, spirit, astral body, etheric body, or any other entity to somewhere else on this or any other planet. The main evidence is in the form of [testimonials](#).

See **related entries** on [mind](#), [near-death experiences](#), [out-of-body experiences](#), [remote viewing](#) and [soul](#).

further reading

[reader comments](#)

- [Crystalinks Astral Projection](#)
- [Keith Augustine's essays](#)

[Grim, Patrick. ed., *Philosophy of Science and the Occult*, second edition \(Albany: State University of New York Press, 1990\).](#)

[Sagan, Carl. *Broca's Brain* \(New York: Random House, 1979\), pp. 47-48.](#)

 [astral body](#)

[astrology](#) 

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reader comments:

angels

24 Apr 1999

Your description of angels is based on the writing "On the Celestial Hierarchy" by a 5th century author using the pseudonym of "Dionysius the Areopagite" (and others who expanded on his themes). These writings are only accepted by the Catholic Church (and only marginally), some cults, and various mystic organizations (as you mention).

Harold Joss

reply: I'm glad to hear there is not widespread belief in this celestial hierarchy.



[angels](#)



past life regression

Past life regression (PLR) is the alleged journeying into one's past lives while [hypnotized](#). While it is true that many patients *recall* past lives, it is highly probable that their memories are [false memories](#). The memories are from experiences in this life, pure products of the imagination, intentional or unintentional suggestions from the hypnotist, or [confabulations](#).

Some New Age therapists do [PLR therapy](#) under the guise of personal growth; others under the guise of healing. As a tool for New Age explorers, there may be little harm in encouraging people to remember what are probably [false memories](#) about their living in earlier centuries or for encouraging them to go forward in time and glimpse into the future. But as a method of healing, it must be apparent even to the most superficial of therapists that there are great dangers in encouraging patients to create delusions. Some false memories may be harmless, but others can be devastating. They can increase a person's suffering, as well as destroy loving relationships with family members. The care with which hypnosis should be used seems obvious.

Some therapists think [hypnosis](#) opens a window to the [unconscious mind](#) where memories of past lives are stored. How memories of past lives get into the unconscious mind of a person is not known, but advocates loosely adhere to a doctrine of [reincarnation](#), even though such a doctrine does not require a belief in the unconscious mind as a reservoir of memories of past lives.

PLR therapists claim that past life regression is essential to healing and helping their patients. [Some therapists](#) claim that past life therapy can help even those who don't believe in past lives. The practice is given undeserved credibility because of the credentials of some of its leading advocates, e.g., [Brian L. Weiss, M.D.](#), who is a graduate of Columbia University and Yale Medical School and Chairman Emeritus of Psychiatry at the Mount Sinai Medical Center in Miami. There are no medical internships in PLR therapy, nor does being a medical doctor grant one special authority in [metaphysics](#), the [occult](#) or the supernatural.

reincarnation and PLR

Psychologist Robert Baker demonstrated that *belief in reincarnation* is the greatest predictor of whether a subject would have a past-life memory while under past life regression hypnotherapy. Furthermore, Baker demonstrated that the subject's expectations significantly affect the past-life regressive session. He divided a group of 60 students into three groups. He told the first

group that they were about to experience an exciting new therapy that could help them uncover their past lives. Eighty-five per cent in this group were successful in "remembering" a past life. He told the second group that they were to learn about a therapy which may or may not work to engender past-life memories. In this group, the success rate was 60%. He told the third group that the therapy was crazy and that normal people generally do not experience a past life. Only 10% of this group had a past-life "memory."

There are at least two attractive features of past life regression. Since therapists charge by the hour, the need to explore centuries instead of years will greatly extend the length of time a patient will need to be "treated," thereby increasing the cost of therapy. Secondly, the therapist and patient can usually speculate wildly without much fear of being contradicted by the facts. However, this can backfire if anyone bothers to investigate the matter, as in the case of [Bridey Murphy](#), the case that started this craze in 1952.

See related entries on [cryptomnesia](#), [Bridey Murphy](#), [dianetics](#), [channeling](#), [hypnosis](#) and [memory](#).

further reading

[reader comments](#)

- ["Past lives" gurus bring their side-show schtick to Tampa Bay](#) by Gary P. Posner, M.D.
- [A Case of Reincarnation -- Reexamined](#) Joe Nickell (the case of Jenny Cockell)

[Baker, Robert A. *Hidden Memories: Voices and Visions From Within* \(Buffalo, N.Y. : Prometheus Books, 1992.\)](#)

Baker, Robert. "The Aliens Among Us: Hypnotic Regression Revisited," *The Skeptical Inquirer*, Winter 1987-88.

[Baker, Robert A. *They Call It Hypnosis* \(Buffalo, N.Y.: Prometheus Books, 1990\).](#)

Spanos, Nicholas. "Past-life Hypnotic Regression: A Critical View," *Skeptical Inquirer* 12, no.2 (Winter 1987-88) 174-180.



[pareidolia](#)

[pathological science](#)



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Did you know?

A solar year is **365.2421199** days, more or less.

The Gregorian calendar gives each fourth year a 366th day, except for years divisible by 100 but not divisible by 400.

The New Millennium

A **millennium** is a period of one thousand years. **The New Millennium** begins in 2001. There was no year 0, so the first millennium began in the year 1 and ended one thousand years later in 1,001. Of course, the year 1 is arbitrary, as are the concepts of a millennium, a century, and a decade, although it is clear why members of our species prefer a numbering system with base 10.

There have been any number of millennia, depending on where you start counting. Today could be considered the end of a millennium. It could also be considered somewhere near the middle of the 12,000,000th millennia. So could tomorrow and the next day. Any moment could be considered both the beginning and the end of a millennium.

Another thing to consider is that not everybody in the world uses the Gregorian calendar, which places the beginning of the new millennium on January 1, 2001, and the *newfaux* millennium on January 1, 2000. In fact, some peoples still prefer lunar years to solar years. For example, it is 1420 according to the Egyptian Muslim (lunar) calendar, which marks the beginning of historical time from the day the Prophet Mohammed fled Mecca. The few Jews still living in Egypt consider Gregorian 1999 to be the year 5760. They use a Hebrew calendar, as do the Hebrews in Israel.

According to one group of Hindus in India, 1999 Gregorian is 2056. According to another group, it is 1921. In Iran, Shiite Muslims are in the year 1378. The Mayans consider this year to be 5119, while the Buddhist calendar says it is 2544.

Others accept the Gregorian calendar but don't celebrate New Year's Eve on December 31. The Copts (Egyptian Christians), for example, consider September 11 to be New Year's Day. Still others follow ecological, rather than solar or lunar, calendars, and pay no heed to such concepts as millennia.

something BIG will happen

The idea that something BIG will happen in the New Millennium is based on nothing worth considering, unless you consider New Age hype worth a minute of your time. Nevertheless, the belief that we are on the verge of something REALLY BIG is spreading. It could be the end of the world and the arrival of the Anti-Christ. It could be the elevation to cosmic consciousness of even the dopiest amongst us. Market economies may be abandoned for Universal Multi-Level Marketing. All aliens may be identifying themselves in the greatest OUTING in history. Then again, the

New Millennium could be just another delusion.

The only REALLY BIG thing that the New Millennium is likely to bring about is more hype about how REALLY BIG THINGS are about to begin or end. Will the New Millennium be a Great New Beginning for Humankind or will it be the End of the World? One thing is certain, however: the HYPE regarding the New Millennium will expand faster than the universe. The question is, *will there be enough brain matter to stop it?*

further reading

- [Blame the madness on Dennis the Short](#)
- [The Millennium Watch Institute](#)
- [Rapture Ready](#) with Todd Strandberg
- [8 Myths about the Millennium Bug](#)
- [Utopians? Dystopians? \(Let's call the whole thing off\)](#) by Jayne L. Bowman
- [Prince \[Charles\] pleads for new dawn of spiritual rediscovery](#) - a dim bulb shines his light on the future

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[Telepathic communication with pets draws skepticism](#)

BY ANABELLE de GALE

[U vet school finds demand growing for alternative therapies for horses](#) by Mary

Jane Smetanka
(7/14/02)

[Fetch the crystal ball, Rover! Your pets can unleash telepathic powers, experts say](#)

By JACKIE LOOHAUIS

[Paws for Reiki: Hands-on healing for your ailing pets](#)

animal quackers

Animal quackers are people who apply [quackery](#) to animals. For example, [Linda Tellington-Jones](#) developed a [holistic](#) form of [massage therapy](#) for [dogs](#) and [horses](#). [Betty Solbjor](#) provides [reiki](#) for both pets and people. Some therapists recommend [therapeutic touch](#) for [animals](#). [Sonya Fitzpatrick](#) claims to be a pet [psychic](#) and has her own show on [the Animal Planet channel](#). Some veterinarians are using [acupuncture](#) on [their patients](#). Animal [naturopathy](#) is [popular in some quarters](#). Other [animal quackers](#) prefer animal [homeopathy](#). [Aromatherapy](#) for pets is [popular with some animal lovers](#).

[The New England Directory of Holistic Resources](#) lists several "alternative" therapies for pets, including traditional Chinese veterinary medicine. [Chiropractic](#) is also well represented in [animal healing](#). [Vitamin Resource](#) has a long line of herbal products for one's animal companion, including tranquilizers. [Herbs are popular](#) with those who wish to give their pets a dose of [Ayurvedic](#) medicine.

[The Cancer Cure Foundation](#) offers alternative cancer treatment recommendations for your pet.

Finally, chimpanzees have been known to [drink their own urine](#), but whether they are practicing [urine therapy](#) is difficult to determine.

See related entries listed at [Alternative Medicine](#).

further reading

- [Dietary Supplements and Animals](#) by Linda Grassie
- [The Alternative Medicine Advisory Page](#)
- [THE ENTIRELY ON-LINE "ALTERNATIVE MEDICINE PRIMER"](#)
- [Sonya Malpatrick](#)

Imrie, Robert DVM. "Confronting Veterinary Medical Nonsense," *Skeptical Inquirer*, Jul/Aug 2001.



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quackery

Quackery used to be a pejorative term describing medical charlatanism. As medical charlatanism became more popular and as using pejorative terms became politically incorrect except for the formerly oppressed classes, *quackery* evolved into [alternative medicine](#) and *complementary medicine* by those who practice it, and into *unproven therapies* and *questionable methods* by those who are critical of it. When *quackery* is mixed with scientific medicine, the latter is called a *mainstream modality* and the result is called *integrative medicine* by those who practice it.

Quackery usually involves integrating [metaphysics](#) and such things as [sympathetic magic](#) or [spiritualism](#) with healing. Often the major quality of quackery is fraud and the dispensing of useless or harmful treatments to vulnerable people who are dying. What quackery lacks in scientific study it makes up for by prescribing generous portions of caring and overdoses of false hope.

Quackery is short for *quacksalver*, and probably has nothing to do with the sound made by ducks. Quacksalver derives from two Middle Dutch terms and seems to mean *healing with unguents*. However, *quacken* means to boast, so a *kwakzalver* might be a healer who boasts, in which case *medical quackery* would be an oxymoron.

further reading

- [QuackWatch](#) with Dr. Stephen Barrett
- [Fraud & Quackery: Internet Resources: Alternative Medicine](#)
- [Alternative Medicine Topical Index Skeptic's Dictionary](#)
- [The Museum of Questionable Medical Devices](#)
- The Medical Messiahs: A Social History of Health Quackery in Twentieth-Century America Chapter 18: [Anti-Quackery, Inc.](#) James Harvey Young, PhD

[Barrett, Stephen and William T. Jarvis. eds. *The Health Robbers: A Close Look at Quackery in America*, \(Amherst, N.Y.: Prometheus Books, 1993\).](#)

[Gardner, Martin. *Fads and Fallacies in the Name of Science*\(New York: Dover Publications, Inc., 1957\), ch. 16.](#)

[Randi, James. *The Faith Healers* \(Amherst, N.Y.: Prometheus Books, 1989\).](#)

[Raso, Jack. "Alternative" Healthcare: A Comprehensive Guide \(Amherst, NY: Prometheus Books, 1994\).](#)

Raso, Jack. "Mystical Medical Alternativism," *Skeptical Inquirer*, Sept/Oct 1995.

Stenger, Victor J. "[Quantum Quackery](#)," *Skeptical Inquirer*. January/February 1997.

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 [pyramid schemes](#)

[the Quadro tracker](#) 

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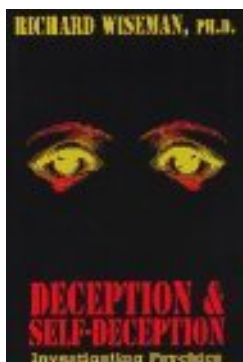


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[Magic wands make
cash disappear](#)

[Government cracks
down on psychic lines](#)

By Jerry Schwartz
The Associated Press



[Deception & Self-](#)

psychic

"When confidential information leaks out of an organization, people suspect a spy, not a psychic." --John Allen Paulos, *Innumeracy*

As an adjective, *psychic* refers to forces or agencies of a [paranormal](#) nature. As a noun, *psychic* refers to a [medium](#) or a person who has [paranormal](#) powers.

[James Randi](#), who has tested many people who think they have psychic abilities, has found that when he has tested the alleged paranormal powers of psychics (1) they had never before tested their powers under controlled conditions, and (2) those who don't offer preposterous rationalizations for their inability to perform seem genuinely baffled at their failure. Often, psychics are not frauds; they genuinely believe in their powers. But they've never tested their powers in any meaningful way. Randi offers [\\$1,000,000](#) to anyone who can demonstrate psychic powers. The [Australian Skeptics](#) will throw in an additional \$100,000 (Australian) for the psychic and \$20,000 for anyone "who nominates a person who successfully completes the Australian Skeptics Challenge." [B. Premanand of the Indian Skeptic](#) will throw in another 100,000 rupees.

To believe in the ability of a person to [channel](#) spirits, to "hear" or "feel" the voices or presence of the dead, to "see" the past, the future or what is presently in another's mind, to make contact with a realm of reality that transcends natural laws is to believe in something highly improbable. Psychics don't rely on psychics to warn them of impending disasters. Psychics don't predict their own deaths or diseases. They go to the dentist like the rest of us. They're as surprised and disturbed as the rest of us when they have to call a plumber or an electrician to fix some defect at home. Their planes are delayed without their being able to anticipate the delays. If they want to know something about Abraham Lincoln, they go to the library; they don't try to talk to Abe's spirit. In short, psychics live by the known laws of nature except when they are playing the psychic game with people. Psychics aren't overly worried about other psychics reading their minds and revealing their innermost secrets to the world. No casino has ever banned psychics from the gaming room because there is no need.

The improbability of there being a paranormal realm is argued for in many entries in the *Skeptic's Dictionary*. If it is improbable that the paranormal is real, then it is improbable that psychics are tapping into the paranormal realm. Why then are psychics so popular with young and old, stupid and intelligent, ignorant and wise alike?

The main reasons for belief in such [paranormal](#) powers as [clairvoyance](#) and [clairaudience](#) are (1) the perceived accuracy of psychic predictions and readings; (2) the seemingly uncanny premonitions which many people have, especially in [dreams](#); and (3) the seemingly fantastic odds against such premonitions or predictions being correct by coincidence or chance.

However, the accuracy of psychic predictions is grossly overrated. The belief in the accuracy of clairvoyants such as [Edgar Cayce](#) and [Jeanne Dixon](#) is due to several factors, including mass media error and hype. For example, it has been repeatedly reported in the mass media that Jeanne Dixon predicted the assassination of President Kennedy. She did not. The *New York Times* helped spread the myth that Edgar Cayce transformed from an illiterate into a healer when [hypnotized](#). One of the more egregious cases of mass media complicity in promoting belief in psychics is the case of "psychic" Tamara Rand, producer Dick Maurice, and talk show host Gary Grecco of KNTV in Las Vegas. All conspired to deceive the public by claiming that a video tape of a "Dick Maurice Show," on which Rand predicts the assassination attempt by John Hinkley on Ronald Reagan, was done on January 6, 1981. The tape was actually made on March 31, 1991, a day after Hinkley shot Reagan (Steiner).

Another reason the accuracy of psychic predictions is grossly overrated is because many people do not understand how psychics use techniques such as warm and [cold reading](#). Also, many people lack an understanding of [confirmation bias](#) and [The Law of Truly Large Numbers](#). The accuracy of premonitions and prophecies is also grossly exaggerated because of lack of understanding of [confirmation bias](#) and [The Law of Truly Large Numbers](#); their accuracy is also exaggerated because of ignorance about how [memory](#) works, especially about how [dreams](#) and premonitions are often filled in after the fact.

psychic performers

The strongest kind of evidence for psychic power comes from witnessing an alleged psychic perform. Some performers seem to be able to do things that require paranormal powers; these are the masters of the art of [conjuring](#). Others seem to be able to tell us things about ourselves and our departed loved ones that only we should know; these are the masters of [cold reading](#). Others surreptitiously gather information about us and deceive us into thinking they obtained their data by psychic means.

The success of numerous hoaxes by fraudulent psychics testifies to the difficulty of seeing through the performance. Psychologist Ray Hyman, who worked as a "psychic" to help pay his way through college, claims that the most common method used by psychics is "cold reading" and offers the following [Guide to Cold Reading](#):

1. **You must act with confidence. You don't need to be arrogant. In fact, you will probably benefit by pretending to be humble. James van Praagh and John Edward repeatedly warn their marks that they aren't always accurate, that they don't know how their power works, that they misinterpret things, etc. But they never give any sign that they are not really communicating with the dead.**
2. **You must do your research. You have to be up on the latest statistics (e.g., most plane crashes are in April; most planes have something red on their tails). You have to know what people in general are like from polls and surveys. Also, you must pick up in casual conversation before a performance any information that might be useful later, like talking to a cameraman in the afternoon and then during the evening performance you are "contacted" by his dead father, whom he told you all about that afternoon.**
3. **You must convince the mark that he or she will be the reason for success or failure. This is actually true because it is the mark who will provide all the vital information that seems so shocking and revealing. It is human nature to find meaning, so this is not a difficult chore. The mark will bring significance to much of what you throw at him or her. If you bring up "June" and get no response, you make the mark feel like they're not remembering properly. If you say "8, the 8th month, 8-years, August" and somebody bites by saying "Dad died in August" and the mark thinks it was *you* who told *her* that fact rather than the other way around. When you say "I see a watch, a bracelet, something on the wrist" and the mark says "I put my necklace in mom's casket." You say "Right. She thanks you for it, too." Everybody thinks you knew she put a necklace in the casket and they will forget that you were fishing for some jewelry on the wrist.**
4. **Be observant. Does the person have expensive jewelry on but worn out clothes? Is she wearing a pin with the letter 'K' on it. (You better know that 'Kevin' is a good guess here. But it doesn't matter, really. Since, when the mark tells you the name of the person, she'll think you are the one who told her the name!)**
5. **Use flattery and pretend you know more than you do.**

The list goes on, but you get the idea. What looks like psychic power is little more than a game of twenty-questions, or a fishing expedition, with *the mark providing all the relevant details and connecting all the dots*, while the "psychic" appears to be getting messages from beyond. Of course, sometimes the "psychic" is simply an observant, thoughtful person, who says things appropriate for the age and gender of the subject. For example, one of my students--right out of high school, tall, handsome, strong and athletic--was told by a "psychic" to stay away from the sex or he'd be having a baby. The student became an immediate convert. He'd already gotten a girl pregnant and had a daughter. Good advice became proof of psychic power in this young man's mind. She also told him other things "nobody could have known," such as that he had once thrown up all over himself and crapped in his pants. He

apparently had done this as a young man and didn't realize that she was describing a nearly universal situation for babies.

The deception can be more dramatic than cold reading, of course. According to [Lamar Keene](#), a "reformed psychic," some people seek psychic advice from professional psychics who exchange information on their marks. Some psychics do what is called a "warm reading," i.e., they have done research on you and that's why they know things they shouldn't know. Still others are magicians who try to pass off their conjuring skills as paranormal powers.

It has also been argued that if psychic power existed, to use it would be "a gross and unethical violation of privacy" and "professions that involve deception would be worthless" (Radford). There wouldn't be any need for undercover work or spies. Every child molester would be identified immediately. No double agent could ever get away with it. Psychics would be on demand for high paying jobs in banks, businesses and government. "Most psychics would be very, very rich...." (Radford) and since psychics are such altruistic persons, giving up their time to help others talk to the deceased or figure out what to do with their lives, they would be winning lotteries right and left and giving part of their winnings to help the needy. We wouldn't need trials of accused persons: psychics could tell us who is guilty and who is not. The [polygraph](#) would be a thing of the past. Of course, the operative word here is *if*. If psychic power existed the world would be very different.

It seems clear that psychics can be explained in one of three ways: (1) they truly are psychic; (2) they are frauds, taking advantage of people's gullibility and weaknesses; or (3) they're deluded and self-deceived. Of the three options, the least probable is option number one. "Psychics" who are honest about their deception call themselves [mentalists](#) and call their art magic or [conjuring](#). Yet, it is the "psychics," not the mentalists, who are the darlings of the mass media. Thus, when the mass media promote "psychics" for their entertainment or news value, they are either promoting fraud or encouraging delusions. Perhaps the media think that because most parties in the psychic game are consenting adults, that makes it ok. Perhaps the police agree and that is why telepsychics like [Miss Cleo](#) can practice without fear of arrest.

See related entries on [Akashic record](#), [auras](#), [Edgar Cayce](#), [Jeanne Dixon](#), [ESP](#), [clairaudience](#), [clairvoyance](#), [cold reading](#), [dreams](#), [ganzfeld experiment](#), [mentalists](#), [Raymond Moody](#), [optional starting and stopping](#), [paranormal](#), [parapsychology](#), [precognition](#), [psi](#), [psi-missing](#), [psychic photography](#), [psychic surgery](#), [psychokinesis](#), [remote viewing](#), [retrocognition](#), [séance](#), [shotgunning](#), [Charles Tart](#), [telepathy](#), and [James Van Praagh](#).

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[reader comments](#)

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- ["A Guide to Cold Reading"](#) by Ray Hyman
- [Failed Psychic Predictions 1999](#)
- [Telephone psychic's latest revelation: He just makes it up](#)
- [This psychic gets \\$296, not palm crossed with silver](#)
- [An Unpredictable Business Professional psychics face same challenges as other entrepreneurs](#)
- [Secrets of a Telephone Psychic](#) by Jane Louise Boursaw
- [Frank Browning of Salon reviews *Lives of the Psychics: The Shared Worlds of Science and Mysticism* by Fred M. Frohock](#)
- [The Research With B.D. and the Legacy of Magical Ignorance](#) by George P. Hansen
- [Deception by Subjects in Psi Research](#) by George P. Hansen
- [Dead To Sue Van Praagh](#)
- [Mass Media Funk-4](#) (Michael Shermer & Van Praagh on ABC's 20/20)
- [Mass Media Funk - 16 \(John Edward\)](#)
- [Mass Media Funk - 22 \(Miss Cleo\)](#)
- [Mass Media Bunk-4](#) (Larry King Live show)
- [Mass Media Bunk-6](#) (Charles Grodin show)
- [Mass Media Bunk-13](#) (CBS's 48 hours - George Anderson)
- [Mass Media Bunk 15 \(Van Praagh, Edward, Sylvia Browne on Larry King\)](#)

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[psi-missing](#)



[psychic detectives](#)

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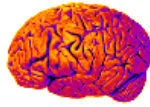
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[Topical Index](#)



"alternative" medicine

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- [shark cartilage as a cancer cure](#)
- [therapeutic touch](#)
- [trepanation](#)
- [urine therapy](#)
- [Joel D. Wallach, "The Mineral Doctor"](#)

Medical Suburban Myths (from the [Suburban Myths Page](#))

[Myth 2.](#) Prescription drugs are one of the leading causes of death.

[Myth 3.](#) Most medical treatments have never been clinically tested.

[Myth 19.](#) Medical doctors typically know nothing about nutrition.

[Myth 21.](#) Faith healing works.*

[Myth 22.](#) Dr. Randolph Byrd scientifically proved that prayer can heal.

[Myth 23.](#) Even if Dr. Byrd failed, others have succeeded in proving scientifically that prayer heals.

[Myth 25.](#) Transplant organs carry personality traits which are transferred from donors to receivers.

[Myth 31.](#) Crimes, mental illness, suicides, and emergency room visits increase when there is a full moon.

[Myth 43.](#) Suicide increases over the holidays.

[Myth 46.](#) Switching to a low-tar cigarette will reduce one's chances of being exposed to the carcinogens in cigarette smoke.

[Myth 47.](#) Vaccination of children with the (MMR) vaccine to prevent measles,* mumps and rubella causes autism.*

Other Sources

- ["Why Bogus Therapies Often Seem to Work"](#) by Barry L. Beyerstein, Ph.D.
- [Quack Watch](#) - Dr. Stephen Barrett
- [The Expanded Dictionary of Metaphysical Healthcare: Alternative Medicine, Paranormal Healing, and Related Methods](#) by Jack Raso, M.S., R.D.
- [National Council Against Health Fraud](#)
- [Health Frontiers Center for Quackery Control, Inc.](#)
- [The American Council on Science and Health](#)
- [HealthCare Reality Check](#)
- [ChiroBase](#) and [ChiroWatch](#) Skeptical Guides to Chiropractic
- [Fat City - Diet Scams](#)
- [HealthWatch UK](#)

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[Raso, Jack. *"Alternative" Healthcare: A Comprehensive Guide* \(Amherst, NY: Prometheus Books, 1994\).](#)

[Sampson, Wallace and Lewis Vaughn, editors. *Science Meets Alternative Medicine: What the Evidence Says About Unconventional Treatments* \(Prometheus Books, 2000\).](#)

Visit [the Stephen Barrett room](#) of the [Skeptic's Bookstore](#) for more books on "alternative" medicine.

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animism

Animism is the doctrine that things have [souls](#). (*Animus* is the Latin word for soul.) It is an ancient belief that may have been offered as an explanation for the difference between a thing that is alive and that thing when it is dead. It may have been offered also as an explanation for appearances of people in hallucinations or dreams. Animus, spirit, or [energy](#) exists independently of the thing, whether that thing be dead or alive.

Some people believe that the souls of humans exist before or after the body dies. Some believe that the souls of animals and plants are never extinguished. Some think that inanimate objects have souls.

In modern times, animism is popular with most religions and New Age folks. It is especially popular with people who find solace in traditions like [shamanism](#), perhaps because they find the modern world is too complex and meaningless to give them any sense of their own significance.

See **related entries** on [dualism](#) and [vitalism](#).

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[animal quackers](#)

[anomalous cognition](#)



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shamanism

Shamanism is an ancient religion that includes belief in [animism](#), deities, and demons. The shaman, or priest, is believed to have special powers that allow him to communicate with ancestral spirits, the gods, or their evil counterparts. Shamanism is still practiced by indigenous peoples in [Siberia](#).

The term "shaman" has come to refer to any priest or priestess who uses magic to heal the sick or communicate with spirits. Shamans are thought to possess magical powers and have esoteric knowledge, especially regarding the healing powers of certain plants. Shamanic healing centers, books, and programs are common New Age developments, growing in proportion to the complexity and indifference towards individuals of the modern world. For some people, shamanism is a window to a glorious, if illusory, past, when humans lived in harmony with nature and with each other. Shamanism offers not only an [alternative medicine](#), but an alternative reality.

[Some](#) modern folks have been attracted to shamanism because of its association with [altered states of consciousness](#) induced by drumming, fasting, wilderness vision questing, sweat-lodges, and especially by hallucinogenic plants. For such people, shamanism offers the hope of an experience that will not only give meaning and significance to their lives, but will also erase from consciousness, at least temporarily, the horrors of a world that at times seems to have gone mad.

Neither New Age shamanism nor Native American religions have any direct connection to the ancient religion of Siberia.

further reading

- [Shamanism: It Ain't Native American Religion!](#)
- [Shamanism](#)



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dualism

Dualism is the metaphysical doctrine that there are two substances, i.e., distinct and independent types of being, one material and the other spiritual. Material substance is defined as physical and is asserted to be the underlying reality of the empirical world, i.e., the world we see, hear, etc., and measure with our senses and technical instruments that extend the range of the senses, such as electron microscopes, telescopes, radar, etc.

The spiritual world is usually described negatively as the non-physical, non-material reality underlying the non-empirical world, variously called the psychological, the mental, or the spiritual world.

Dualists are fond of a belief in immortality. If there is another type of reality besides the body, this non-body can survive death. The *non*-body can conceivably exist eternally in a *non*-physical world, enjoying *non*-physical pleasures or pains distributed by a *non*-physical God. This notion seems to be *non*-sense, but it apparently gives many people great comfort and hope.

Some dualists are fond of drawing a significant inference from the fact that we use different kinds of language to talk about physical things and non-physical things. They note that when we talk about physical things we use language that locates or causally connects objects in space. When we talk about processes such as *thinking*, however, we don't use the language of things in space. We don't think of thinking as taking place in a particular place or of a thought as having physical dimensions. That is true; however, dualists infer from this fact about language that the non-physical is a substance, i.e., a type of reality capable of independent existence, not reducible to some other phenomenon. Most dualists would agree that colors, for example, are not substances because colors do not have independent existence: they are reducible to other phenomena, such as light, sensory apparatus, etc. Yet, many dualists would deny that *thinking*, *perceiving*, *willing*, *desiring*, etc., are reducible to material processes (e.g., brain states). They believe these psychological or mental activities are best explained as functions of a non-physical substance. They can certainly be coherently explained by dualism, but it is not necessary to bring in the belief in non-physical reality to explain everything that is hard to talk about *physically*.

In any case, it seems very presumptuous to assume that the way language has evolved and developed is a keen sign as to the nature of reality.

See related entries on [astral projection](#), [mind](#), [near-death experiences](#), [out-of-body experiences](#), [remote viewing](#) and [souls](#).

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 [animism](#)

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anomalous cognition

Anomalous cognition is a term coined by Science Applications International Corporation (SAIC) to refer to [ESP](#), including [telepathy](#), [clairvoyance](#), [precognition](#) and [remote viewing](#). SAIC also refers to [psychokinesis](#) as [anomalous perturbation](#).

SAIC claims their terminology is neutral. It also sounds more scientific and looks better on grant applications.

Last updated 01/10/03

[anomalous luminous phenomena](#) 

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[According to a Gallup poll, belief in telepathy has remained constant at 36% over the past decade.](#)

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 [telekinesis](#)

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telepathy

Literally, "distance feeling." The term is often a shortened version of *mental telepathy* and refers to mind-reading, discerning another's thoughts through [esp.](#)

further reading

[reader comments](#)

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[teleportation](#) 

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[A Gallup poll indicates that belief in clairvoyance has increased from 26% to 32% over the past decade.](#)

clairvoyance or second sight

Clairvoyance is an alleged [psychic](#) ability to see things beyond the range of the power of vision. Clairvoyance is usually associated with [precognition](#) or [retrocognition](#). The faculty of seeing into the future is called "second sight" if it is not induced by [scrying](#), drugs, trance, or other artificial means.

People can predict the future. We do it all the time, but we usually, if not always, do it by taking into account our experience, knowledge and surroundings. Some predictions by psychics come true. So do some predictions by non-psychics. No doubt much of our anticipation of the future is unconscious and second nature, but it is based on quite natural and mundane abilities not on mysterious or supernatural powers.

further reading

[reader comments](#)

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 [clairaudience](#)

[the clustering illusion](#) 

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precognition

Precognition is [psychic](#) knowledge of something in advance of its occurrence.

See **related entries** on [clairvoyance](#), [ESP](#), [parapsychology](#), [psi](#), [psychokinesis](#), [retrocognition](#) and [telepathy](#).

further reading

[reader comments](#)

[Hyman, Ray. *The Elusive Quarry: a Scientific Appraisal of Psychological Research* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)



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remote viewing

Remote viewing is the alleged psychic ability to perceive places, persons and actions that are not within the range of the senses. Remote viewing might well be called Psychic [Dowsing](#). Instead of a twig or other device, one uses psychic power alone to dows the entire galaxy, if need be, for whatever one wants: oil, mountains on Jupiter, a lost child, a buried body, a hostage site thousands of miles away, inside the Pentagon or the Kremlin, etc.

Ingo Swann and Harold Sherman claim to have done remote viewing of Mercury and Jupiter. Dr. Russell Targ and Dr. Harold Puthoff studied Swann and Sherman, and reported that their remote viewing compared favorably to the findings of the Mariner 10 and Pioneer 10 research spacecrafts. Isaac Asimov, however, did a similar comparison and found that 46% of the observation claims of the astral travelers were wrong. Also, only one out of 65 claims made by the remote viewers was a fact that either was not obvious or not obtainable from reference books [James Randi].

Targ and Puthoff were not put off by the fact that Swann claimed he saw a 30,000 ft. mountain range on Jupiter on his astral voyage when there is no such thing. It is hard to imagine why anyone would have faith in such claims. If I told you that I had been to your home town and had seen a 30,000 ft. high mountain there, and you knew there was no such mountain, would you think I had really visited your town even if I correctly pointed out that there is a river nearby and it sometimes floods? Swann, in a lovely [ad hoc hypothesis](#), now claims that astral travel is so fast that he probably wasn't seeing Jupiter but another planet in another solar system! There really is a big mountain out there on some planet in some solar system in some galaxy.

The CIA and the U.S. Army thought enough of remote viewing to spend millions of taxpayers' dollars on research in a program referred to as "Stargate." The program involved using psychics for such operations as trying to locate Gadhafi of Libya (so our Air Force could drop bombs on him) and the locating of a missing airplane in Africa. The mass media, ever watchful of wasteful government programs, did not exhibit much skepticism regarding remote viewing. Typical is the reporting in the Sacramento area. TV news anchors Alan Frio and Beth Ruyak led their nightly Channel 10 program on November 28, 1995, with a story on "exciting new evidence" that remote viewing really works. The same story had appeared that morning in the *Sacramento Bee* in an Associated Press article about "Stargate" by Richard Cole. "A particularly talented viewer accurately drew windmills when the sender was at a windmill farm at Altamont Pass," Cole wrote. The "talented viewer" was Joe McMoneagle, a former army psychic spy. Cole based his claim on the testimony of Dr. Jessica Utts, a statistics professor at the

University of California, Davis, who was hired by the government to do an assessment of "psychic functioning." Channel 10 interviewed Dr. Utts, who confirmed that there is good reason to believe that Joe McMoneagle does indeed have psychic powers.

McMoneagle was in the army for 16 years, apparently serving some or most of that time as a psychic spy. He claims he helped locate the U.S. hostages taken by Iran during Jimmy Carter's presidency. Now a civilian psychic consultant, McMoneagle has turned his talents to more significant feats, as Dr. Utts demonstrated. She held up a drawing allegedly done by McMoneagle and declared that it was done by remote viewing. Another scientific researcher had gone to the Altamont pass, known for its miles of funny looking windmills on acres of rolling hills. McMoneagle tried to use his psychic powers to "see" what the researcher at Altamont was seeing and then draw what he was seeing. The sum total of the evidence for the value of psychic spying consisted of only one drawing and Dr. Utts's word that it looks like the Altamont pass. I will testify that in fact the drawing did have a strong resemblance to the Altamont pass. It also had a strong resemblance to ships on a stormy sea and to debris in a cloudy, stormy sky.

McMoneagle was just one of the psychics studied by Targ and Puthoff at the Stanford Research Institute (aka SRI International) from 1973 through 1989 and by another outfit with the unassuming name of Science Applications International Corp., which did its research from 1992 through 1994. Utts and Dr. Ray Hyman, a psychologist at the University of Oregon and a skeptic, issued separate reports on these studies. Utts concluded that "psychic functioning has been well established." Hyman disagreed. In his AP article, Cole wrote that Utts and Ray Hyman stated that "the research was faulty in some respects. The government often used only one 'judge' to determine how close the psychics had come to the right answer. That should have been duplicated by other judges." I would assume that Hyman, if not Utts, would have required a bit more of these studies than that they have more judges.

As a public service, I notified both Channel 10 and Dr. Utts of [James Randi's challenge](#): \$1,000,000 to anyone who can prove he or she has psychic powers. I don't think a heartfelt [testimonial](#) from Dr. Utts or Mr. McMoneagle will qualify. As far as I know, the Randi money is still unclaimed.

CIA spokesman Mark Mansfield said: "The CIA is reviewing available programs regarding parapsychological phenomena, mostly remote viewing, to determine their usefulness to the intelligence community." He also notes that the Stargate program was found to be "unpromising" in the 1970s and was turned over to the Defense Department. At one time as many as sixteen psychics worked for the government and the Defense Intelligence Agency made them available to other government departments. One of the psychics, David Morehouse, was recruited when he took a bullet in the head in Jordan

and started having visions and vivid nightmares. He's written a book about it (*Psychic Warrior*) and it is sure to be better received by true believers than Mansfield's disclaimer.

See **related articles** on [astral projection](#), [near-death experiences](#), and [out-of-body experiences](#).

further reading

- ["The Evidence for Psychic Functioning: Claims vs. Reality"](#) by Ray Hyman
- [AN ASSESSMENT OF THE EVIDENCE FOR PSYCHIC FUNCTIONING](#) by Professor Jessica Utts
- [Ingo Swann's testimony](#)
- [Turan Rifat thinks he knows the physics of remote viewing](#)
- [Ed Dames Challenges the Government on Remote Viewing](#)
- [Joe McMoneagle: Remote Viewing](#)
- [Consciousness and Anomalous Physical Phenomena](#) - Princeton Engineering Anomalies Research (pdf format, requires Adobe Acrobat)

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 [reincarnation](#)

[repressed memory](#) 

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telekinesis and psychokinesis

Telekinesis is the movement of objects by scientifically inexplicable means, as by the exercise of an occult power. Psychokinesis is the production of motion in physical objects by the exercise of psychic or mental powers. Uri Geller claims he can bend spoons and stop watches using only his thoughts to control the external objects. Others claim to be able to make pencils roll across a table by a mere act of will. The variety of parlor tricks used to demonstrate psychokinetic powers is endless.

further reading

[reader comments](#)

- [Psychokinesis: Proving the Power of the Mind](#) by Craig Miller

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 [Charles Tart](#)

[telepathy](#) 


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 [anomalous luminous
phenomena](#)

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anomalous perturbation

Anomalous perturbation is a term coined by Science Applications International Corporation (SAIC) to refer to [psychokinesis](#). SAIC also refers to [ESP](#) as [anomalous cognition](#).

SAIC claims their terminology is neutral. It also sounds more scientific and looks better on grant applications.

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[anomaly](#) 

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[Quaking lights](#)
[Scientists drawn to legends of luminous displays that precede temblors](#) By Alberto Enriquez *Anchorage Daily News*
(Published: January 21, 2002)

anomalous luminous phenomena (alp)

Anomalous luminous phenomena (alps) are lights of various sizes which are generated by stresses and strains within the earth's crust preceding earthquakes, according to [Michael Persinger, Ph.D.](#) He developed the tectonic strain theory (TST) as an explanation for what is going on when people observe [UFOs](#).

According to Persinger,

[ALPs] display odd movements, emit unusual colors or sounds and occasionally deposit physical residues. When these phenomena closely approach a human observer, exotic forces and perceptions are frequently reported. Most ALPs display life times in the order of minutes and appear to show spatial dimensions in the order of meters. Despite their remarkably similar descriptions over time and across cultures, the transience and localized occurrence of these phenomena have limited their systematic investigation.*

Persinger claims that his TST is not meant to debunk UFO claims but to provide a means of [predicting earthquakes](#). "Persinger has apparently done a computer analysis of about 3,000 UFO sightings and has found that many of them occurred weeks or months before the start of earth tremors."*

The experience of an alp has a psychological side as well because of direct stimulation of the observer's brain and [communal reinforcement](#). Persinger believes that the energy from tectonic fractures causes some observers to hallucinate or lose consciousness. Those who share the experience confirm and reinforce the "reality" of each other's UFO observations.

further reading

- [The Tectonic Strain Theory of UFO's](#) by Michael A. [Persinger](#), Ph.D
- [EARTHQUAKE and UFOs anomalous luminous phenomena A.L.P](#)
- [Tectonic Strain and the Earth Light Theory: Gravitational Anomalies](#) by Christopher Montgomery



[anomalous cognition](#)

[anomalous perturbation](#)



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anomaly

An anomaly (literally, *no law or rule*) is an irregular or unusual event which does not fit a standard rule or law. For example, a frog when dropped should move through the air towards the ground, according to the law of gravity. If the frog were to remain suspended in mid-air, such levitation would be an anomaly. If it were discovered, however, that the frog was being suspended in mid-air by [electromagnetic devices](#), the anomaly would dissolve.

Anything weird, abnormal, strange, odd, or difficult to classify is considered an anomaly.

In science, an anomaly is something which cannot be explained by currently accepted scientific theories. Sometimes the new phenomenon leads to new rules or theories, e.g., the discovery of x-rays and radiation.

See **related entries** on [Charles Fort](#), [the face on Mars](#), and the [Pitldown](#) hoax.

further reading

- [Science Frontiers](#) - reports on scientific anomalies
- [Strange Magazine](#) - reports on strange phenomena
- [Anomalies](#) - database of the paranormal
- [Weird Science](#)
- [Society for Scientific Exploration](#) (of weird things)
- [The Princeton Engineering Anomalies Research](#)

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[anomalous
perturbation](#)

[cerebral anoxia](#)

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Charles Fort

Charles Fort (1874-1932) fancied himself a true [Skeptic](#), one who opposes all forms of dogmatism, believes nothing, and does not take a position on anything. He claimed to be an "intermediatist," one who believes nothing is real and nothing is unreal, that "all phenomena are approximations one way or the other between realness and unrealness." Actually, he was an anti-dogmatist who collected weird and bizarre stories.

Fort spent a good part of his adult life in the New York City public library examining newspapers, magazines, and scientific journals. He was looking for accounts of anything weird or mysterious which didn't fit with current scientific theories. He collected accounts of frogs and other strange objects raining from the sky, [UFOs](#), [ghosts](#), [spontaneous human combustion](#), the [stigmata](#), [psychic](#) abilities, etc. He published four collections of weird tales and [anomalies](#) during his lifetime: *Book of the Damned* (1919), *New Lands* (1923), *Lo!* (1931), and *Wild Talents* (1932). In these works, he does not seem interested in questioning the reliability of his sources, which is odd, given that he had worked as a news reporter for a number of years before embarking on his quest to collect stories of the weird and bizarre. He does reject one story about a talking dog who disappeared into a puff of green smoke. He expresses his doubt that the dog really went up in green smoke, though he doesn't question its ability to speak.

Fort did not seem particularly interested in making any sense out of his collection of weird stories. He seemed particularly uninterested in scientific testing, yet some of his devotees consider him to be the founding father of modern paranormal studies. His main interest in scientific hypotheses was to criticize and ridicule the very process of theorizing. His real purpose seems to have been to embarrass scientists by collecting stories on "the borderland between fact and fantasy" which science could not explain or explain away. Since he did not generally concern himself with the reliability or accuracy of his data, this borderland also blurs the distinction between open-mindedness and gullibility.

Fort was skeptical about scientific explanations because scientists sometimes argue "according to their own beliefs rather than the rules of evidence" and they suppress or ignore inconvenient data. He seems to have understood that scientific theories are models, not pictures, of reality, but he considered them to be little more than superstitions and myths. He seems to have had a profound misunderstanding of the nature of scientific theories. For, he criticized them for not being able to accommodate anomalies and for requiring data to fit. He took particular delight when scientists made incorrect predictions and he attacked what he called the "priestcraft" of science. Fort

seems to have been opposed to science as it really is: fallible, human and tentative, after probabilities rather than absolute certainties. He seems to have thought that since science is not infallible, any theory is as good as any other. This is the same kind of misunderstanding of science that we find with so-called "[scientific creationists](#)" and many other [pseudoscientists](#).

Apparently, Fort was a prolific writer. He is said to have written ten novels, but only one was published: *The Outcast Manufacturers* (1906). At least twice in his life he is said to have burned thousands of pages of notes and writings while severely depressed. Two early works of fiction, both burned, entitled X and Y, dealt with Martians controlling life on earth and an evil civilization existing at the South Pole. When he was only about 25 years old, Fort wrote his autobiography, *Many Parts*. Fragments of it have been preserved, but Fort himself came to recognize that there is little to recommend it and described it as "the work of an immature metaphysician, psychologist, sociologist, etc."

One of Fort's amusements as an adult seems to have been to speculate about such things as frogs falling from the sky. He postulated that there is a Super-Sargasso Sea above the Earth (which he called Genesistrine) where living things originate and periodically are dumped on Earth by intelligent beings who communicate with secret societies down below, perhaps using [teleportation](#).

Fort had very few friends, but one of them, Tiffany Thayer, created the Fortean Society to promote and encourage Fort-like attacks on science and scientists. When Fort died in 1937, he left over 30 boxes of notes, which the Fortean Society began publishing in the *Fortean Society Magazine* (later *Doubt* magazine). In 1959 Thayer died and the Fortean Society came to an end. Others, however, took up the torch. [The Fortean Times](#) is advertised as exploring "the wild frontiers between the known and the unknown" and features articles on topics such as the government's alleged suppression of evidence regarding crashed UFOs, synaesthesia, a mysterious undersea structure, and other things the editors think are strange or weird. The International Fortean Organization publishes [INFO Journal](#) several times a year. It features stories on such topics as anomalous astronomical phenomena, anomalies in the physical sciences, scientific hoaxes and [cryptozoology](#). The [Society for the Investigation of the Unexplained](#) (SITU) collects data on unexplained events and publishes a magazine called *Pursuit*. The [Anomalist](#) magazine publishes articles on mysteries in science and nature. [Strange](#) magazine has articles, features and columns covering all aspects of the anomalous and unexplained. William R. Corliss founded the [Sourcebook Project](#) (a catalog of anomalies) and [Science Frontiers](#), a newsletter which has been providing digests of reports that describe scientific anomalies since 1976. There are [many other Fortean groups](#), as well, but it is worth noting that Fort opposed the idea of a Fortean Society. He thought that such a group

would attract [spiritualists](#) and crackpots.

further reading

[reader comments](#)

- [Blather](#)
- [Fortean Slips](#) from ParaScope
- [INTERNATIONAL FORTEAN ORGANIZATION](#)
- [The Charles Fort Institute](#)
- [The Fortean Times](#)
- [The Outcast Manufacturers](#), a novel by Charles Hoy Fort
- [Charles Hoy Fort's Short Stories](#)

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[Forer effect](#)

[Freemasons](#)



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Piltdown Hoax

Piltdown was an archaeological site in England where in 1908 and 1912 human, ape and other mammal fossils were found together. In 1913 at a nearby site was found an ape's jaw with a canine tooth worn down like a human's. The general community of British paleoanthropologists came to accept the idea that the fossil remains belonged to a single creature that had had a human cranium and an ape's jaw. In 1953, Piltdown 'man' was exposed as a forgery. The [skull](#) was modern and the teeth on the ape's jaw had been filed down.

To those who are skeptical of science, such as [Charles Fort and the Fortean's](#), such episodes as Piltdown are taken to be proof that science is, more or less, bunk. To those who have a better understanding of the nature and limits of science, Piltdown is little more than a wrong turn down a series of roads which, despite such detours, eventually arrives at the right destination.

How had so many scientists been duped? Stephen Jay Gould offers several reasons, among them [wishful thinking](#) and *cultural bias*. The latter, no doubt, played a role in the lack of critical thinking among *British* paleoanthropologists. But, above all, the Piltdown forgery demonstrates the *fallibility* of scientific knowledge. It demonstrates, too, the way theories and facts are related in science. Theories are the filters through which facts are interpreted (Popper). Theories try to explain and make sense of facts. On the other hand, facts are used to test theories. Gould notes that today a human cranium with an ape's jaw is considered to be extremely implausible and far-fetched. But in the early part of this century, anthropologists were imbued with the cultural prejudice which considered man's big brain as his ticket to rule, the main evolutionary feature that made it possible for man to develop all his other unique features. Since there was a pre-conceived notion that man's brain must have developed to its human size before other changes occurred in human structure, a human cranium with an ape's jaw didn't arouse as much suspicion as it would today. Fossil discoveries since Piltdown clearly show a progression from small-brained but upright, hence non-simian hominids, to larger-brained upright humans. Scientists "modeled the facts" and confirmed their theory, "another illustration," says Gould, "that information always reaches us through the strong filters of culture, hope, and expectation" (Gould 1982, p. 118). Once committed to a theory, we see what fits with the theory.

The main reason Piltdown was not spotted as a fraud much earlier was that scientists weren't allowed to see the evidence, which was kept securely locked in the British Museum. Instead of focusing their attention on examining the "facts" more closely with an eye to discovering the fraud, scientists weren't

even allowed to examine the physical evidence at all! They had to deal with plaster molds and be satisfied with a quick look at the originals to justify the claim that the models were accurate.

Another reason some scientists were duped was probably because it was not in their nature to consider someone would be so malicious as to intentionally engage in such deception. In any case, one of the main fallouts of Piltdown has been a virtual industry of detectives trying to identify the hoaxer. The list of suspects includes:

Charles Dawson, an amateur archaeologist who brought in the first cranial fragments from Piltdown;

Tielhard de Chardin, theologian and scientist who accompanied Dawson and Arthur Smith Woodward (Keeper of Geology at the British Museum [Natural History] in 1912) to Piltdown on expeditions where they discovered the mandible;

W.J. Sollas, a professor of geology at Oxford;

Grafton Elliot Smith, who wrote a paper on the find in 1913;

Arthur Conan Doyle, the creator of Sherlock Holmes; and

Martin A.C. Hinton, a curator of zoology at the time of the Piltdown hoax. A trunk with Hinton's initials on it was found in an attic of London's Natural History Museum. The trunk contained bones stained and carved in the same way as the Piltdown fossils.

The evidence in each case is circumstantial and not very strong. What is highly probable is that there will be more books speculating on the identity of the Piltdown hoaxer.

the moral of Piltdown

The moral of Piltdown is that science is a fallible, human activity which does not always take the most direct route in fulfilling its aim of understanding nature. When an [anomaly](#) such as the discovery of a human cranium with an ape's jaw occurs one must either fit it into a *new* theory, re-examine the evidence for error in discovery or interpretation, or show that the so-called anomaly is not really an anomaly at all but in fact fits with current theory. Which route a scientist takes may be guided more by personal hopes and cultural prejudices than by some mythical objectivity characterized by the collection and accumulation of colorless, impersonal facts to be pigeonholed dogmatically into a General Theory of Objective Truth and Knowledge.

But to characterize scientists as arrogant buffoons making claims that often turn out to be false, and to make a caricature out of science because it is not infallible and does not arrive at absolutely certain claims, belies a grave misunderstanding of the nature of science. The buffoons are those who demand absolute certainty where none can be had; the buffoons are those who do not understand the value and beauty of probabilities in science. The arrogant ones are those who think that science is mere speculation because scientists make errors, even egregious errors, or at times even commit fraud to push their prejudices. The arrogant ones are those who can't tell the difference between a testable and an untestable hypothesis and who think one speculation is as good as another. The buffoons are those who think that since both scientists and [creationists](#) or other [pseudoscientists](#) pose *theories*, each is doing essentially the same thing. However, all theories are not empirical, and of those that are empirical not all are equally speculative. Furthermore, those creationists who think that Piltdown demonstrates that scientists can't accurately date bones should remember that methods of dating such things have greatly improved since 1910.*

Because of the public nature of science and the universal application of its methods, and because of the fact that the majority of scientists are not crusaders for their own untested or untestable prejudices, as many pseudoscientists are, whatever errors are made by scientists are likely to be discovered by other scientists. The discovery will be enough to get science back on track. The same can't be said for the history of quacks and pseudoscientists where errors do not get detected because their claims are not tested properly. And when critics identify errors, they are ignored by true believers.

(note: Yet another book on the Piltdown hoax has been published since the Hinton trunk discovery. *Unraveling Piltdown: The Science Fraud of the Century and Its Solution* by John Evangelist Walsh (Random House, 1996) points the finger at Dawson once again.)

See **related entries** on [Blondlot](#), the [Cardiff Giant](#), [the Ica stones](#), the [Fortean](#)s, [orgone energy](#), [pathological science](#), and [pseudoscience](#).

further reading

[reader comments](#)

- [The Perpetrator at Piltdown](#) by John Hathaway Winslow and Alfred Meyer
- [Richard Harter's Piltdown Man Page](#) Focuses mainly on who might have perpetrated the hoax.
- [A Mostly Complete Piltdown Man Bibliography](#) by Tom Turriffin

- [Piltdown Man - The Bogus Bones Caper](#) by Richard Harter
- [Piltdown: the man who never was](#) by Lee Krystek, [The Museum of Unnatural Mystery](#)
- [The Piltdown Plot](#)
- [The Debunking of Three Hoaxes](#) by James Opie
- [The Piltdown Forgery](#) by Shireen Gonzaga

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[physiognomy](#)

[pious fraud](#)



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anoxia

Cerebral anoxia is the lack of oxygen to the brain. If severe, it can cause irreversible brain damage. Less severe cases can cause sensory distortions and hallucinations. Cerebral anoxia has been cited by some researchers as the cause of [near-death experiences](#) (NDEs).

further reading

[Blackmore, Susan J., *Dying to Live: Near-death Experiences*, \(Buffalo, N.Y. : Prometheus Books, 1993\).](#)

[Lutz, Peter and Goran E. Nilsson. *The Brain Without Oxygen* \(Chapman & Hall, 1998\)](#)

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anthropometry

Anthropometry is the study of human body measurement for use in anthropological classification and comparison.

In the 19th and early 20th centuries, anthropometry was a pseudoscience used mainly to classify potential criminals by facial characteristics. For example, Cesare Lombroso's *Criminal Anthropology* (1895) claimed that murderers have prominent jaws and pickpockets have long hands and scanty beards. The work of Eugene Vidocq, which identifies criminals by facial characteristics, is still used nearly a century after its introduction in France.

The most infamous use of anthropometry was by the Nazis, whose Bureau for Enlightenment on Population Policy and Racial Welfare recommended the classification of Aryans and non-Aryans on the basis of measurements of the skull and other physical features. Craniometric certification was required by law. The Nazis set up certification institutes to further their racial policies. Not measuring up meant denial of permission to marry or work, and for many it meant the death camps.

Today, anthropometry has many practical uses, most of them benign. For example, it is used to assess nutritional status, to monitor the growth of children, and to assist in the design of office furniture.

See related entries on [craniometry](#) and [phrenology](#).

further reading

- [Nazi pseudoscience](#)

[Gould, Stephen Jay. *The Mismeasure of Man* \(W W Norton & Co: 1993\).](#)



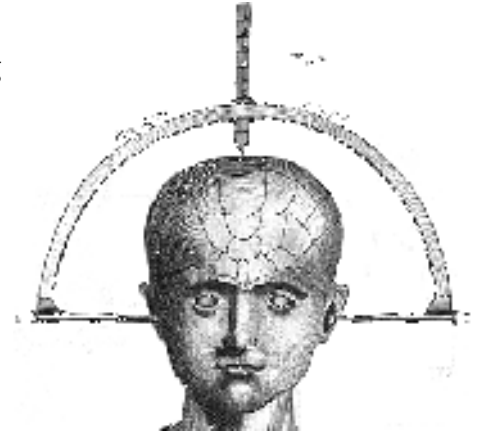
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craniometry (craniology)

Craniometry is the measurement of cranial features in order to classify people according to race, criminal temperament, intelligence, etc. The underlying assumption of craniometry is that skull size and shape determine brain size which determines such things as intelligence and capacity for moral behavior. Empirical evidence for this assumption is not very strong. This fact has not hindered small-headed people from claiming they are members of a superior race or gender because the head size of their racial or gender group is larger on average than the head size of some other racial or gender group. As members of superior races and gender, these small-headed people reason that they, too, must be superior to all members of races inferior to their own and of all members of the other gender. In logic, this is called the fallacy of division: reasoning that what is true of the whole or group must also be true of the parts or members of the group.



In the 19th century, the British used craniometry to justify its racist policies toward the Irish and black Africans, whom the British considered to be inferior races. Irish skulls were said to have the shape of Cro-Magnon men and were akin to that of apes, proof of their inferiority along with black Africans. In France, [Paul Broca](#) demonstrated that women are inferior to men because of their smaller crania. He argued against higher education for women because their small brains couldn't handle the demands.*

In the 20th century, the Nazis used craniometry and [anthropometry](#) to distinguish Aryans from non-Aryans.

"Forensic anthropologists believe that by taking some 90 measurements of a skull they can correctly assign its owner's continent of origin — broadly speaking, its race, though many anthropologists prefer not to use that term — with 80 percent accuracy."*

See **related entries** on [anthropometry](#), [IQ and race](#), and [phrenology](#).

further reading

- [Modern Phrenology](#)
- [Does Brain size matter? A Reply to Rushton and Ankney](#) by Michael Peters

- [Racism](#) (a study unit on the Nebraska Department of Education site)
- [The Great Starvation as Opportunistic Genocide](#) By Seamus Metress
Professor of Anthropology The University of Toledo

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[A Course in Miracles](#)

[craniosacral therapy](#)



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[Now we have
electronic
phrenology!](#)

phrenology (cranioscopy)

Phrenology is the study of the structure of the skull to determine a person's character and mental capacity. This [pseudoscience](#) is based upon the false assumption that mental faculties are located in brain "organs" on the surface of the brain and can be detected by visible inspection of the skull. The Viennese physician [Franz-Joseph Gall](#) (1758-1828) claimed there are some [26 "organs" on the surface of the brain](#)



which affect the contour of the skull, including a "murder organ" present in murderers. Gall was an advocate of the "use it or lose it" school of thought. Brain organs which were used got bigger and those which were not used shrunk, causing the skull to rise and fall with organ development. These bumps and indentations on the skull, according to Gall, reflect specific areas of the brain that determine a person's emotional and intellectual functions. Gall called the study of these cranial hills and valleys "cranioscopy." Others, such as [Johann Kaspar Spurzheim \(1776-1832\)](#) who spread the word in America and [George Combe \(1788-1858\)](#) who founded the Edinburgh Phrenological Society, followed with even zanier and more specious divisions and designations of the brain and skull, such as "metaphysical spirit" and "wit." In 1815, Thomas Foster called the work of Gall and Spurzheim "phrenology" (*phrenos* is Greek for mind) and the name stuck.

Phrenology advanced the correct notions that the human brain is the seat of character, emotions, perception, intellect, etc., and that different parts of the brain are responsible for different mental functions. However, in Gall's time it was only possible to study the brains of the *dead*; thus, phrenologists could only associate the different structures in the brain with supposed mental functions that were in turn associated with the contour of the skull. Little was done to study the brains or the behavior of persons known to have had neurological problems, which might have helped in the process of locating parts of the brain responsible for specific neurological functioning. Instead, mental faculty localization was arbitrarily selected. Gall's early work was with criminals and the insane and his brain "organs" reflected this interest. Spurzheim got rid of "theft organs" and "murder organs," but he mapped out areas for ["benevolence," "self-esteem," and "conjugal love."](#)

Although phrenology has been thoroughly discredited and has been

recognized as having no scientific merit, it still has its [advocates](#). It remained popular, especially in the United States, throughout the 19th century and it gave rise to several other pseudoscientific characterologies, e.g., [craniometry](#) and [anthropometry](#). Phrenology was highly praised by Ralph Waldo [Emerson](#), [Horace Mann](#), [Thomas Edison](#), and [Alfred Russell Wallace](#). The Boston Medical Society welcomed Spurzheim as a heroic figure when he arrived in 1832 for The American Tour. [The Fowler Brothers and Samuel Wells](#) published the [American Phrenological Journal and Life Illustrated](#), which lasted from 1838 until 1911. In Edinburgh, Combe's *Phrenological Journal* was published from 1823 until 1847. Another indication of the popularity of phrenology in the 19th century is that Combe's *The Constitution of Man* sold more than 300,000 copies between 1828 and 1868.

It is difficult to explain the early popularity of phrenology among scientists, since the empirical evidence for a direct relationship between the brain and character was scant. An unplanned experiment provided some solid evidence for such a relationship in 1848 when [Phineas Gage's](#) moral character changed dramatically after an explosion blew a tamping iron through his head (Damasio). Gage was leading a railroad construction crew near Cavendish, Vermont, when the accident occurred. "Before the accident he had been a most capable and efficient foreman, one with a well-balanced mind, and who was looked on as a shrewd smart business man." After the accident, he became "fitful, irreverent, and grossly profane, showing little deference for his fellows. He was also impatient and obstinate, yet capricious and vacillating, unable to settle on any of the plans he devised for future action."^{*} On the other hand, one might conclude that the Gage incident blew a hole through the theory that bumps on the head were the keys to the functions of the brain beneath.



Phrenology gave rise to the invention of the [psychograph](#) by Lavery and White, a machine which could do a phrenological reading complete with printout. It is said that this device netted its owners about \$200,000 at the 1934 Century of Progress Exposition in Chicago. Phrenological readings are not unlike [astrological](#) readings and many who have them done are satisfied that the results are uncannily accurate. The reason for this subjective satisfaction is probably due the [Forer effect](#) rather than to objective scientific data.

See **related entries** on [anthropometry](#), [craniometry](#), [the Forer effect](#), [metoposcopy](#) and [physiognomy](#).

further reading

- [Museum of Questionable Medical Devices](#)
- [Modern Phrenology](#) from "[Phrenology, the History of Brain Localization](#)" by Renato M.E. Sabbatini, PhD
- [Brain and Mind](#) electronic magazine on neuroscience: Mapping the Brain (Renato M.E. Sabbatini, PhD)
- [Phrenology by Steven Novella, MD](#)
- [Peter Van den Bossche's page on Phrenology](#)
- [The History of Phrenology on the Web](#) by John van Wyhe
- [Phrenological Studies of AuntieMae and UncleDon](#)

[Damasio, Antonio R. *Descartes' Error: Emotion, Reason, and the Human Brain* \(Avon Books, 1995\).](#)

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 [philosopher's stone](#)

[physiognomy](#) 

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karma

*"... good and evil fortunes fall to the lot of pious and impious alike . . .
." ---Spinoza*

Karma is a law in Hinduism which maintains that every act done, no matter how insignificant, will eventually return to the doer with equal impact. Good will be returned with good; evil with evil. Since Hindus believe in reincarnation, karma knows no simple birth/death boundaries. If good or evil befall you, it is because of something you did in this or a previous lifetime.

Karma is sometimes referred to as a "moral law of cause and effect." Karma is both an encouragement to do good and to avoid evil, as well as an explanation for whatever good or evil befalls a person.

On one level, karma serves to explain why good things happen to bad people and bad things happen to good people. The injustices of the world, the seeming random distribution of good and evil, are only apparent. In reality, everybody is getting what he or she deserves. Even the child brutalized by drugged adults deserves the horror. The mentally ill, the retarded, the homosexuals, and the millions of Jews killed by the Nazis deserved it for evil they must have done in the past. The slave beaten to within a breath of death deserved it, if not for what he did today, then for what he did in some previous lifetime. Likewise for the rape victim. She is just getting what she deserves. All suffering is deserved, according to the law of karma.

Despite the fact that there could be no evidence for a metaphysical belief in karma, the idea of karma is popular among many in western cultures where it has become detached from its Hindu roots. The [theosophists](#), for example, believe in karma and reincarnation. So does [James Van Praagh](#), who claims to be a psychic conduit for all the billions of people who have died over the centuries.

Let's say someone kills someone . . . at a bank machine.... It could be two things. It could be, the person who committed the crime used their free will to do that. Or this might sound weird, but it could have been a karmic situation where that person who was murdered had to be paid back for murdering the other person in a previous incarnation.

[Amazon.com interview with [James Van Praagh](#)]

Van Praagh makes it clear that he thinks it is karma, not free will, that leads people to kill one another. If Van Praagh is right, we may as well dismantle

our ethical and criminal justice systems. Everybody is just playing out his or her karma. Nobody is really good or evil. Nobody is really responsible for anything they do. We're all just karmic pawns doing a dance with destiny.

Why would such an amoral principle such as karma be paraded forth as if it explained the ultimate justice of an indifferent universe? Because, says Van Praagh, "We are on this earth to learn lessons. This is our schoolroom here. . . . We must go through certain lessons in order to grow." According to Van Praagh, life on earth is actually life in purgatory. We are here working out our sins, evolving our souls, burning off some karma. These are the same feeble reasons given for the existence of evil in a world allegedly created by an Omnipotent, All-Good God. Van Praagh's version of karma is not likely to be accepted by Hindus or Buddhists. They would maintain that when a person does evil, they are acting freely. And when a person suffers evil, it is because of some evil freely done by that person in the past.

Karma as understood by Van Praagh seems to make life trivial, a mere working out of a metaphysical "law" which reduces all humans to dehumanized creatures, devoid of morality and responsibility, mere causes and effects in a pointless system. Karma does not allow that the evil which befalls you may be undeserved.

Karma is a law for sheep. We should not wonder that the shepherds advocate it. It is a law for the passive, for those who will not disturb the status quo, who will accept whatever evil is done as "[natural](#)" and inevitable. Karma is a law for slaves, for the vanquished.

Christians wonder did Adam and Eve have navels; Hindus wonder did the first beings have karma?

See related entry on [reincarnation](#).

further reading

[reader comments](#)

- [Karma & Reincarnation - Hinduism Today](#)

[Edwards, Paul. "Karma," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\).](#)



[Kabbalarian philosophy](#)

[Kirlian photography](#)



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[According to a Gallup poll of Americans, belief in reincarnation has increased from 21% to 25% over the past decade.](#)

reincarnation

Reincarnation is the belief that when one dies, one's body decomposes, but one is reborn in another body. It is the belief that one has lived before and will live again in another body after death. The bodies one passes in and out of need not be human. One may have been a Doberman in a past life, and one may be a mite or a carrot in a future life. Some tribes avoid eating certain animals because they believe that the souls of their ancestors dwell in those animals. A man could even become his own daughter by dying before she is born and then entering her body at birth.

The belief in past lives used to be mainly a belief in Eastern religions such as Hinduism and Buddhism, but now is a central tenet of such theories as [dianetics](#) and [channeling](#). In those ancient Eastern religions, reincarnation was not considered a good thing, but a bad thing. To achieve the state of ultimate bliss (nirvana) is to escape from the wheel of rebirth. In most, if not all, ancient religions with a belief in reincarnation, the soul entering a body is seen as a metaphysical demotion, a sullyng and impure rite of passage. In New Age religions, however, being born again seems to be a kind of perverse goal. Prepare yourself in this life for who or what you want to come back as in the next life. Belief in past lives also opens the door for New Age therapies such as [past life regression](#) therapy which seeks the causes of today's problems in the experiences of previous lives.

L. Ron Hubbard, author of [Dianetics](#) and the founder of Scientology, introduced his own version of reincarnation into his new religion. According to Hubbard, past lives need auditing to get at the root of one's "troubles." He also claims that "Dianetics gave impetus to [Bridey Murphy](#)" and that some scientologists have been dogs and other animals in previous lives ("A Note on Past Lives" in *The Rediscovery of the Human Soul*). According to Hubbard, "It has only been in Scientology that the mechanics of death have been thoroughly understood." What happens in death is this: the Thetan (spirit) finds itself without a body (which has died) and then it goes looking for a new body. Thetans "will hang around people. They will see a woman who is pregnant and follow her down the street." Then, the Thetan will slip into the newborn "usually...two or three minutes after the delivery of a child from the mother. A Thetan usually picks it up about the time the baby takes its first gasp." How Hubbard knows this is never revealed.

[J.Z. Knight](#) claims that in 1977 the spirit of a Cro-magnon warrior who once lived in Atlantis took over her body in order to pass on bits of wisdom he'd picked up over the centuries. Ms. Knight seems to be carrying on the work of Jane Roberts and Robert Butts, who in 1972 hit the market with *Seth Speaks*. Knight, Roberts and Butts are all indebted to [Edgar Cayce](#) who claimed to be

in touch with many of his past lives. One would think that channeling might muck things up a bit. After all, if various spirits from the past can enter any body at any time without destroying the present person, it is possible that when one remembers a past life it is actually someone else's life one is remembering.

From a philosophical point of view, reincarnation poses some interesting problems. What is it that is reincarnated? Presumably, it is the [soul](#) that is reincarnated, but what is the soul? A disembodied consciousness?

Reincarnation does seem to offer an explanation for some strange phenomena such as the ability of some people to regress to a past life under [hypnosis](#).

Also, we might explain *child prodigies* by claiming that unlike most cases of reincarnation where the soul has to more or less start from scratch, the child prodigy somehow gets a soul with great carryover from a previous life, giving it a decided advantage over the rest of us. Reincarnation could explain why bad things happen to good people and why good things happen to bad people: they are being rewarded or punished for actions in past lives ([karma](#)). One could explain [déjà vu](#) experiences by claiming that they are [memories](#) of past lives. [Dreams](#) could be interpreted as a kind of soul travel and soul memory. However, past life regression and déjà vu experiences are best explained as the recalling of events from *this* life, not some past life. Dreams and child prodigies are best explained in terms of brain structures and processes. And since bad things also happen to bad people and good things also happen to good people, one might well suppose that there is no rhyme or reason why anything happens to anybody.

Finally, since there is no way to tell the difference between a baby with a soul which will go to heaven or hell, and one with a soul which has been around before in other bodies, and one with no soul at all, it follows that the idea of a soul adds nothing to our concept of a human being. Applying [Occam's razor](#), both the idea of reincarnation and the idea of an immortal soul which will go to heaven or hell are equally unnecessary.

See related entries on [Bridey Murphy](#), [Edgar Cayce](#), [channeling](#), [dreams](#), [dualism](#), [karma](#), [mind](#), [memory](#), [Occam's razor](#), [past life regression](#) and [soul](#).

further reading

[reader comments](#)

- [A Case of Reincarnation -- Reexamined](#) by Joe Nickell
- My [review](#) of *The Rediscovery of the Human Soul* by L. Ron Hubbard,

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[Baker, Robert A. *Hidden Memories: Voices and Visions from Within* \(Amherst, N.Y.: Prometheus Books, 1996\).](#)

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[Edwards, Paul. *Reincarnation: A Critical Examination* \(Amherst, N.Y.: Prometheus Books, 1996\).](#)

Spanos, Nicholas P. "Past-Life Hypnotic Regression: A Critical View," *The Skeptical Inquirer*, Winter 1987-1988

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[remote viewing](#)



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[Imagining Atlantis by Richard Ellis](#)

Atlantis

Atlantis is a legendary island in the Atlantic, west of Gibraltar, that sunk beneath the sea during a violent eruption of earthquakes and floods some 9,000 years before Plato wrote about it in his *Timaeus* and *Critias*. In a discussion of utopian societies, Plato claims that Egyptian priests told Solon about Atlantis. Plato was not describing a real place any more than his allegory of the cave describes a real cave. The purpose of Atlantis is to express a moral message in a discussion of ideal societies, a favorite theme of his. The fact that nobody in Greece for 9,000 years had mentioned a battle between Athens and Atlantis should serve as a clue that Plato was not talking about a real place or battle. Nevertheless, Plato is often cited as the primary source for the reality of a place on earth called Atlantis. Here is what the Egyptian priest allegedly told Solon:

Many great and wonderful deeds are recorded of your state in our histories. But one of them exceeds all the rest in greatness and valour. For these histories tell of a mighty power which unprovoked made an expedition against the whole of Europe and Asia, and to which your city put an end. This power came forth out of the Atlantic Ocean, for in those days the Atlantic was navigable; and there was an island situated in front of the straits which are by you called the Pillars of Heracles; the island was larger than Libya and Asia put together, and was the way to other islands, and from these you might pass to the whole of the opposite continent which surrounded the true ocean; for this sea which is within the Straits of Heracles is only a harbour, having a narrow entrance, but that other is a real sea, and the surrounding land may be most truly called a boundless continent.

Now in this island of Atlantis there was a great and wonderful empire which had rule over the whole island and several others, and over parts of the continent, and, furthermore, the men of Atlantis had subjected the parts of Libya within the columns of Heracles as far as Egypt, and of Europe as far as Tyrrenia. This vast power, gathered into one, endeavoured to subdue at a blow our country and yours and the whole of the region within the straits; and then, Solon, your country shone forth, in the excellence of her virtue and strength, among all mankind. She was pre-eminent in courage and military skill, and was the leader of the Hellenes. And when the rest fell off from her, being

compelled to stand alone, after having undergone the very extremity of danger, she defeated and triumphed over the invaders, and preserved from slavery those who were not yet subjugated, and generously liberated all the rest of us who dwell within the pillars. ([Timaeus](#))

The story is reminiscent of what Athens did against the Persians in the early 5th century BCE, but the battle with Atlantis allegedly took place in the 8th or 9th *millennium* BCE. It would not take much of an historical scholar to know that Athens in 9,000 BCE was either uninhabited or was occupied by very primitive people. This fact would not have concerned Plato's readers because they would have understood that he was not giving them an historical account of a real city. To assume, as many believers in Atlantis do, that there is a parallel between Homer's *Iliad* and *Odyssey* and Plato's *Critias* and *Timaeus* is simply absurd. And those who think that just as [Schliemann](#) found Troy so too will we someday crack Plato's code and find Atlantis are drawing an analogy where they should be drawing the curtains. Plato's purpose was not to *pass on* stories, but to *create* stories to teach moral lessons. What can we expect next from these lost scholars? A search for the grave of Cecrops, the serpent-tailed first king of Athens? The discovery of the true trident of Poseidon?

Different seekers have located the mythical place in the mid-Atlantic, Cuba, the Andes, and dozens of other places. Some have equated ancient [Thera](#) with Atlantis. Thera is a volcanic Greek island in the Aegean Sea that was devastated by a volcanic eruption in 1625 BCE. Until then it had been associated with the [Minoan civilization on Crete](#).

To many, however, Atlantis is not just a lost continent. It is a lost world. The Atlanteans were extraterrestrials who destroyed themselves with nuclear bombs or some other extraordinarily powerful device. Atlantis was a place of advanced civilization and technology. Lewis Spence, a Scottish mythologist who used "inspiration" instead of scientific methods, attributes Cro-Magnon cave paintings in Europe to displaced Atlanteans (Feder, 130). Helena Blavatsky and the [theosophists](#) of the late 19th century invented the notion that the Atlanteans had invented airplanes and explosives and grew extraterrestrial wheat. The theosophists also invented *Mu*, a lost continent in the Pacific Ocean. Psychic healer [Edgar Cayce](#) claimed to have had psychic knowledge of Atlantean texts which assisted him in his prophecies and cures. J.Z. Knight claims that [Ramtha](#), the spirit she channels, is from Atlantis.

The serious investigator of the myth of Atlantis must read Ignatius Donnelly's *Atlantis: the Antediluvian World* (1882). In the spirit of [von Däniken](#), [Velikovsky](#) and [Sitchin](#), Donnelly assumes that [Plato's myth](#) is true history. Much of the popularity of the myth of Atlantis, however, must go to popular writers such J.V. Luce (*The End of Atlantis*, 1970) and Charles Berlitz, the man who popularized the Bermuda Triangle and the discovery of Noah's Ark.

His *Doomsday, 1999 A.D.* (1981) comes complete with maps of Atlantis and drawings by J. Manson Valentine. [Graham Hancock](#) is doing much to keep alive this tradition of "alternative" and "speculative" history and archaeology which seeks a single source for ancient civilizations. [Scientists and the BBC](#) don't think too highly of Mr. Hancock's efforts.

Atlantis and the aliens

These "alternative" archaeologists have credited the Atlanteans with teaching the Egyptians and the Meso-Americans how to build pyramids and how to write, etc., arguing similarly to [von Däniken](#) that ancient civilizations burst on the scene in a variety of different places on earth and have a common source. Atlanteans or aliens, either way the case can be made for a common source for ancient civilizations only if one selectively ignores the gradual and lengthy development of those societies. One must also ignore that the writing of the Egyptians is no clue to the writing of the Mayans, or vice-versa, and that the purpose of their pyramids was quite different. The Meso-Americans rarely buried anyone in their pyramids; they were primarily for religious rituals and sacrifices. The Egyptians used pyramids exclusively for tombs or monuments over tombs. Why would the aliens or Atlanteans not teach the same writing techniques to the two cultures? And why teach step building in Meso-America, a technique not favored by the Egyptians? If you ignore the failures of the early pyramid builders and ignore their obvious development over time, including the development of underground tombs with several chambers, then you might be able to persuade uncritical minds that Giza couldn't have occurred without alien intervention.

Finally, one should wonder, I suppose, if the Atlanteans were such technological geniuses who shared their wisdom with the world, why did Plato depict them as arrogant warmongers?

Unfortunately for the New Age Atlanteans, there is no credible and convincing archaeological or geological evidence for either Atlantis or Mu. That has not stopped hundreds of people from concocting theories to the contrary. To paraphrase Whitehead, the belief in Atlantis, the ancient and great civilization, is another footnote to Plato.

See related entries on [alternative science](#), [confirmation bias](#), [pseudoscience](#), [selective thinking](#), [self-deception](#), any entry listed in [New Age Nirvana](#), and [Mass Media Funk 22](#).

further reading

[reader comments](#)

- [A Brief History of the Lost Continent](#) by D. Trull
- [The Wild Side of Geoarchaeology Page](#) by Paul Heinrich
- [The Mysterious Origins of Man: Atlantis, Mammoths, and Crustal Shift](#) by Paul Heinrich
- [Atlantis Uncovered - BBC Horizon \(Oct 28,1999\)](#)
- [Atlantis Reborn - BBC Horizon \(Dec 14, 2000\)](#)
- [Archaeological/Skeptical Resources, Critiques of cult archaeology, Roman Britain links](#)
- [Atlantis: No way, No how, No where](#) Kevin Christopher

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[Ellis, Richard. *Imagining Atlantis* \(New York: Knopf, 1998\).](#)

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astral body

The astral body is one of seven bodies each of us has, according to [Madame Blavatsky](#). The astral body is the seat of feeling and desire and has an [aura](#). How the physical body and the other alleged bodies interact is unknown, but it is said to be by some sort of occult force. The astral body is said to be capable of leaving the other bodies for an out-of-body experience known as [astral projection](#).

further reading

[Crystalinks Astral Projection](#)

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[aromatherapy](#)

[astral projection](#)



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pagans

'Pagan' is the term Christians use to designate all those who don't accept the God of the Bible. Jews after Christ, as well as all Muslims, are not pagans, but infidels, according to Christians. Jews before Christ are not really pagans, but they're not infidels either. But they were more like pagans than infidels. Infidels are destined to go to Hell. Good pagans such as Socrates, along with good Jews such as Moses, couldn't go to Heaven, but they shouldn't go to Hell, either. At some point in Christian mythology, "limbo" was invented to place these good souls who had not received Christ. Limbo has gone the way of St. Christopher, however, and has been declared by the Church not to exist.

The word 'pagan' is derived from the Latin word for country dweller. The pagans were the Greek and Roman polytheists who followed the cults of Mithras, Venus, Apollo, Demeter, etc. Today, however, Christians generally reserve the appellation for those who belong to no religion or who belong to one of the New Age nature religions or anti-Christian cults.

See related entries on [druids](#), [wicca](#), and [witches](#).

further reading

- [Why Pagans Need to Come Out of the Broom-Closet](#) by Sophia X. Pharou
- [The Celtic Druids](#)

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[out-of-body
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[palmistry](#)

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reader comments:

anthroposophy, Rudolf Steiner and Waldorf Schools

26 Aug 2000

I just read your article on Steiner, Waldorf, and Anthroposophy. Just wanted to quickly respond as it was very clear that you didn't really understand the esoteric Waldorf plan. The schools are an indoctrination into the cult of Anthroposophy. The curriculum is centered on the various occult initiates who Steiner absorbs into his pantheon. The children are given anthroposophical pictures and notions which will be of use in their next incarnation. The "individualism" that they advertise is a code word for the "Anthroposophical Being", a homogenous spirit made up of "Individual I's" that will dominate the world in Steiner's dreamed up future regime.

In Steiner's "Universal Human", p 16-17, he claims that the Initiate cannot have any personal ideas and views of his own, or he will never know objective truth. He states, "The person in whom anthroposophical wisdom appears must be completely unimportant compared to this wisdom; the person as such does not matter at all." He also says, "The anthroposophical view of the world develops in the most individual way, but at the same time it is the most unindividual thing you can imagine." On p 22-23 Steiner states that those that take in anthroposophical thoughts will have a spiritual substance that will help them penetrate the darkness when they die, they will then recognize the people that they worked with on earth. He discusses the deeper task of the anthroposophical movement which is to help those that developed their "individuality" to reincarnate and form core groups that will be scattered over the globe to rule those of us who are not anthroposophists. In his proposed Sixth Epoch he ominously asserts, "To put it bluntly, we can say that the earth and all it can yield will belong to those who now cultivate their individualities. Those, however, who do not develop their individual I will be dependent on joining a group that will instruct them in what they should think, feel, will, and do." [24] In the Seventh Epoch his cult will inhabit the earth in the form of the individual anthroposophical spirit, there will be no more sex, and "man will speak forth man."

Eurythmy is taken from the magical lodge tradition of gestures and signs. It has a secret language which Steiner lifted from the Cabbala, (via the Rosicrucians) and the children in Waldorf are made to communicate to the spirit world. Of course, some of the parents, (like myself at first) assume that it is a form of dance or movement. The Waldorf "art" is part of the system of rigid indoctrination, anthroposophical notions are copied off the board. There is no real free expression. The pictures in the early grade depict

faceless people to help the children conform to the group. The water color exercises are occult moral exercises to heal the children and help their astral bodies mesh with their hereditary bodies, etc. If you examine the children's drawings, you will find all sorts of anthroposophical notions such as gnomes in mines. Anthroposophists believe that gnomes are real, and that you can find them in mines. (There is a book recording Steiner's lectures on this subject.)

Thought you might like to know who the anthroposophists say Steiner was in his previous lives: Enkidu, Kratylos, Aristotle, Schiontiolander, St. Thomas Aquinas, Rudolf Steiner, and he is expected to return at the end of the 20th C, in a rural, hilly place in the USA. Perhaps as a woman, most definitely as a Waldorf student!

The curriculum is all based on alchemy, magic, astrology, and all the bizarre and weird ideas of the occult. It is set up as a secret society, and most of the parents go along with the program without a clue. Luckily, our family figured out the Waldorf lies, and we removed our daughter from their absurd program. I have spent the last year reading Steiner and books about the occult worldview, the schools are not the progressive, liberal, artistic image that they are very good at portraying. The myths, religions and everything taught, are all anthroposophical selections and notions.

The experts of coded language, secrecy and hiding, are 'pulling the wool' over many eyes. With Waldorf, you must look deeper. As written in their magazine, "Anthroposophy Worldwide" 4/2000, p 12, " The press agent has to convey the outer appearance of things rather than the essential core. A deep esoteric background is necessary to make the essential core comprehensible." (Referring to their new press agent, Ursa Krattiger who has been hired to help them further deceive the public.)

Sincerely, Sharon Lombard. (A Freethinker out to expose wacky Waldorf.)

reply: You are not the only one who is out to expose Waldorf schools. [Waldorf critics](#) have their own website.

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apophenia

There is currently a controversial debate concerning whether unusual experiences are symptoms of a mental disorder, if mental disorders are a consequence of such experiences, or if people with mental disorders are especially susceptible to or even looking for these experiences. --[Dr. Martina Belz-Merk](#)

Apophenia is the spontaneous perception of connections and meaningfulness of unrelated phenomena. The term was coined by K. Conrad in 1958 (Brugger).

Peter Brugger of the Department of Neurology, University Hospital, Zurich, gives examples of apophenia from August Strindberg's *Occult Diary*, the playwright's own account of his psychotic break:

He saw "two insignia of witches, the goat's horn and the besom" in a rock and wondered "what demon it was who had put [them] ... just there and in my way on this particular morning." A building then looked like an oven and he thought of Dante's *Inferno*.

He sees sticks on the ground and sees them as forming Greek letters which he interprets to be the abbreviation of a man's name and feels he now knows that this man is the one who is persecuting him. He sees sticks on the bottom of a chest and is sure they form a [pentagram](#).

He sees tiny hands in prayer when he looks at a walnut under a microscope and it "filled me with horror."

His crumpled pillow looks "like a marble head in the style of Michaelangelo." Strindberg comments that "these occurrences could not be regarded as accidental, for on some days the pillow presented the appearance of horrible monsters, of gothic gargoyles, of dragons, and one night ... I was greeted by the Evil One himself...."

According to Brugger, "The propensity to see connections between seemingly unrelated objects or ideas most closely links psychosis to creativity ... apophenia and creativity may even be seen as two sides of the same coin." Some of the most creative people in the world, then, must be [psychoanalysts](#) and therapists who use projective tests like the [Rorschach test](#) or who see [patterns of child abuse](#) behind every emotional problem. Brugger notes that

one analyst thought he had support for the penis envy theory because more females than males failed to return their pencils after a test. Another spent nine pages in a prestigious journal describing how sidewalk cracks are vaginas and feet are penises, and the old saw about not stepping on cracks is actually a warning to stay away from the female sex organ.

Brugger's research indicates that high levels of dopamine affect the propensity to find meaning, patterns, and significance where there is none, and that this propensity is related to a tendency to believe in the paranormal.*

In statistics, apophenia is called a *Type I error*, seeing patterns where none, in fact, exist. It is highly probable that the apparent significance of many unusual experiences and phenomena are due to apophenia, e.g., [EVP](#), [numerology](#), [the Bible code](#), [anomalous cognition](#), [ganzfeld "hits"](#), most forms of [divination](#), the prophecies of [Nostradamus](#), [remote viewing](#), and a host of other paranormal and supernatural experiences and phenomena.

See **related entries** on [pareidolia](#), [sympathetic magic](#) and [synchronicity](#).

further reading

- [Counseling and Help for People with Unusual Experiences at the Outpatient Clinic \(Ambulanz\) of the Psychological Institute at the University of Freiburg](#) - project leader Dr. Martina Belz-Merk
- [The Valujet Plane Crash in Florida, One Year Later](#) - Tom Chase uses astrology and New Age analysis techniques to analyze a plane crash. He thinks "some of the numbers and circumstances involved in this plane crash in Florida show an interesting pattern." I suppose they do.

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 [anthroposophy](#)

[appeal to authority](#) 

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pentagram (pentacle, pentangle)

A pentagram is a five-pointed figure used as a magical or occult symbol by the [Pythagoreans](#), [Masons](#), [Gnostics](#), [Cabalists](#), [magicians](#), [Wiccans](#), [Satanists](#), etc. There is apparently something attractive about the figure's geometry and proportions. In many symbolizations, the top point represents either the human head or a non-human spirit. To invert the figure is considered by some as a sign of relegating Spirit to the bottom of the metaphysical heap. Others take inversion to be Satanic and on par with alleged mockeries such as inverting the cross or saying the Mass backwards. Still others find nothing particularly diabolical about inversion and use the inverted pentagram without fear of accidentally invoking the forces of evil.



The Pentagram From Eliphas Levi's (1810-1875) *Transcendental Magic*

Some say the pentagram is mystical because 5 is mystical. It's a prime number, the sum of 2 and 3, as well as of 1 and 4. Christ had five wounds, they say, if you don't count those inflicted by the crown of thorns; and he distributed five loaves of bread to five thousand people. Most importantly, we have five fingers, toes and senses.

Some Christian watchdogs apparently think the pentagram is the devil's hoof print. They are especially on the lookout for inverted pentagrams as proof of Satanism, but any pentagram will suit most of these caretakers of decent symbology in their never-ending quest to identify evil. Of course, it can be bad for business if rumors are spread that one's company uses the pentagram or any other symbol deemed to be diabolical. [Proctor and Gamble was once accused](#) by [Amway](#) competitors of being run by devil worshippers who flaunted their satanic religion with a diabolical logo. The logo consisted of an old man's bearded face in the crescent moon, facing thirteen stars, all set within a circle. Some saw 666, the number of the Beast in Revelation (usually identified with Satan by the Christian watchdogs), lurking in the old man's beard and in the arrangement of the stars. Others saw a goat, surely a sign of the devil.

To the Wiccan, the five points of the pentagram represent Air, Fire, Water, Earth and Spirit. Wiccans usually put the symbol in a circle, which has traditionally represented the endless or eternity. The ancient Chinese believed there were *five* elements (wood, fire, earth, metal, and water), *five* planets, *five*

seasons, *five* senses, as well as *five* basic colors, sounds and tastes. However, the number six seems to have been more enchanting to them than five, for the [I Ching](#) uses *six* as its base number. So does the [Star of David](#), which has six points and is made by overlapping two equilateral triangles. The Star of David is a hexagram but is not used to cast a hex on you. That kind of hex comes from the German word for witch, *Hexen*, which is related to the Old High German word *hagzissa*, a hag. Personally, if proportion and geometry are the basis for mystical figures, the hexagram seems much preferable to the pentagram.



Occultists of all sorts wear pentagram [talismans](#) to protect them from evil or to help them get occult knowledge and power. They even draw pentagrams on the ground and stand within them to better call upon occult powers. If the point is aimed north, they are *not* worshippers of Satan. However, if the point is aimed south, they are. So say the Christian watchdogs.

For some reason, the pentagram has become the symbol for a star, though no star in the sky looks like a pentagram, unless perhaps it is seen from inside the five corners of the earth when one is five sheets to the wind. Furthermore, some mystics claim that if one stares at a small pentangle long enough one will see that all triangles end in a circle with five sides.

further reading

- [Pentagram illustrations from the Freemasons of British Columbia & Yukon](#)
- [Symbolic Meanings of the Pentagram](#)
- [THE PENTAGRAM A Much Misunderstood Symbol](#)

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psychoanalysis & Sigmund Freud

"I am actually not at all a man of science, not an observer, not an experimenter, not a thinker. I am by temperament nothing but a conquistador-an adventurer, if you want it translated-with all the curiosity, daring, and tenacity characteristic of a man of this sort" (Sigmund Freud, letter to Wilhelm Fliess, Feb. 1, 1900).



"By the 1950' and '60s, the master's warning had been drowned in a tumult of excited voices. Psychoanalysts and psychiatrists could cure even schizophrenia, the most feared mental disease of all, they claimed, and they could do it simply by *talking with their patients*" (Dolnick, 12).

Psychoanalysis is the granddaddy of all [pseudoscientific](#) psychotherapies, second only to [Scientology](#) as the champion purveyor of false and misleading claims about the mind, mental health and mental illness. For example, in psychoanalysis [schizophrenia and depression](#) are not neurochemical disorders, but *narcissistic* disorders. Autism and other brain disorders are not brain chemistry problems but mothering problems. These illnesses do not require pharmacological treatment. They require only "talk" therapy. Similar positions are taken for anorexia nervosa and Tourette's syndrome. (Hines 1990, 136) What is the scientific evidence for the psychoanalytic view of these mental illnesses and their proper treatment? There is none.

Freud thought he understood the nature of schizophrenia. It is not a brain disorder, but a disturbance in the unconscious caused by unresolved feelings of homosexuality. However, he maintained that psychoanalysis would not work with schizophrenics because such patients ignore their therapist's insights and are resistant to treatment (Dolnick 1998, 40). Later psychoanalysts would claim, with equal certainty and equal lack of scientific evidence, that schizophrenia is caused by smothering mothering. In 1948, Frieda Fromm-Reichmann, for example, gave birth to the term "schizophrenogenic mother," the mother whose bad mothering causes her child to become schizophrenic (*ibid.* 94). Other analysts before her had supported the notion with anecdotes and intuitions, and over the next twenty years many more would follow her misguided lead.

Would you treat a broken leg or diabetes with "talk" therapy or by interpreting the patient's dreams? Of course not. Imagine the reaction if a diabetic were told that her illness was due to "masturbatory conflict" or "displaced eroticism." One might as well tell the patient she is possessed by demons, as give her a psychoanalytic explanation of her physical disease or

disorder. Exorcism of demons by the shaman or priest, exorcism of childhood experiences by the psychoanalyst: what's the difference? So why would anyone still maintain that neurochemical or other physical disorders are caused by *repressed* or *sublimated* traumatic sexual childhood experiences? Probably for the same reason that theologians don't give up their elaborate systems of thought in the face of overwhelming evidence that their systems of belief are little more than vast metaphysical cobwebs. They get a lot of institutional reinforcement for their socially created roles and ideas, most of which are not capable of being subjected to empirical testing. If their notions can't be tested, they can't be disproved. What can't be disproved, and also has the backing of a powerful institution or establishment, can go on for centuries as being respectable and valid, regardless of its fundamental emptiness, falsity or capacity for harm.

The most fundamental concept of psychoanalysis is the notion of the unconscious mind as a reservoir for repressed memories of traumatic events which continuously influence conscious thought and behavior. The scientific evidence for this notion of unconscious [repression](#) is lacking, though there is ample evidence that conscious thought and behavior are influenced by unconscious memories.

Related to these questionable assumptions of psychoanalysis are two equally questionable methods of investigating the alleged memories hidden in the unconscious: free association and [the interpretation of dreams](#). Neither method is capable of scientific formulation or empirical testing. Both are metaphysical blank checks to speculate at will without any check in reality.

Scientific research into how memory works does not support the psychoanalytic concept of the unconscious mind as a reservoir of repressed sexual and traumatic memories of either childhood or adulthood. There is, however, ample evidence that there is a type of memory of which we are not consciously aware, yet which is remembered. Scientists refer to this type of memory as *implicit memory*. There is ample evidence that to have memories requires extensive development of the frontal lobes, which infants and young children lack. Also, memories must be encoded to be lasting. If encoding is absent, amnesia will follow, as in the case of many of our dreams. If encoding is weak, fragmented and implicit memories may be all that remain of the original experience. Thus, the likelihood of infant memories of abuse, or of anything else for that matter, is near zero. Implicit memories of abuse do occur, but not under the conditions which are assumed to be the basis for repression. Implicit memories of abuse occur when a person is rendered unconscious during the attack and cannot encode the experience very deeply. For example, a rape victim could not remember being raped. The attack took place on a brick pathway. The words 'brick' and 'path' kept popping into her mind, but she did not connect them to the rape. She became very upset when taken back to the scene of the rape, though she didn't remember what had happened there (Schacter, 232). It is unlikely that [hypnosis](#), free association,

or any other therapeutic method will help the victim remember what happened to her. She has no explicit memory because she was unable to deeply encode the trauma due to the viciousness of the attack which caused her to lose consciousness. The best a psychoanalyst or other [repressed-memory therapist](#) can do is to create a [false memory](#) in this victim, abusing her one more time.

Essentially connected to the psychoanalytic view of repression is the assumption that parental treatment of children, especially mothering, is the source of many, if not most, adult problems ranging from personality disorders to emotional problems to mental illnesses. There is little question that if children are treated cruelly throughout childhood, their lives as adults will be profoundly influenced by such treatment. It is a big conceptual leap from this fact to the notion that *all* sexual experiences in childhood will cause problems in later life, or that all problems in later life, including sexual problems, are due to childhood experiences. The scientific evidence for these notions is lacking.

In many ways, psychoanalytic therapy is based on a search for what probably does not exist (repressed childhood memories), an assumption that is probably false (that childhood experiences caused the patient's problem) and a therapeutic theory that has nearly no probability of being correct (that bringing repressed memories to consciousness is essential to the cure). Of course, this is just the foundation of an elaborate set of scientifically sounding concepts which pretend to explain the deep mysteries of consciousness and behavior. But if the foundation is illusory, what possibly could be the future of this illusion?

There are some good things, however, which have resulted from the method of psychoanalysis developed by Sigmund Freud (1856-1939) a century ago in Vienna. Freud should be considered one of our greatest benefactors if only because he pioneered the desire to *understand* those whose behavior and thoughts cross the boundaries of convention set by civilization and cultures. That it is no longer fashionable to condemn and ridicule those with behavioral or thought disorders is due in no small part to the tolerance promoted by psychoanalysis. Furthermore, whatever intolerance, ignorance, hypocrisy and prudishness remains regarding the understanding of our sexual natures and behaviors cannot be blamed on Freud. Psychoanalysts do Freud no honor by blindly adhering to the doctrines of their master in this or any other area. Finally, as psychiatrist Anthony Storr put it: "Freud's technique of listening to distressed people over long periods rather than giving them orders or advice has formed the foundation of most modern forms of psychotherapy, with benefits to both patients and practitioners" (Storr 1996, 120).

See related entries on [dreams](#), [false memory](#), [Carl Jung](#), [memory](#), [New Age Psychotherapies](#), [repressed memory](#), [repressed memory therapy](#), [science](#), and [the unconscious mind](#).

further reading

[reader comments](#)

- [Jonathan Lear](#) and [Frederick Crews](#) over Freud
- [UCI SCIENTISTS DISCOVER CRITICAL BRAIN CELL ABNORMALITIES IN SCHIZOPHRENIA](#)
- [Depression Central](#) - Ivan K. Goldberg, MD. For patients and families, provides clear explanations and answers to questions about depressive illness.
- [The American Psychoanalytic Association](#)
- [Sigmund Freud and the Freud Archives](#)

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Rorschach Inkblot Test

The Rorschach inkblot test is a psychological projective test of personality in which a subject's interpretations of ten standard abstract designs are analyzed as a measure of emotional and intellectual functioning and integration. The test is named after Hermann Rorschach (1884-1922) who developed the inkblots, although he did not use them for personality analysis.



The test is considered "projective" because the patient is supposed to project his or her real personality into the inkblot via the interpretation. The inkblots are purportedly ambiguous, structureless entities which are to be given a clear structure by the interpreter. Those who believe in the efficacy of such tests think that they are a way of getting into the deepest recesses of the patient's psyche or subconscious mind. Those who give such tests believe themselves to be experts at interpreting their patients' interpretations.

What evidence is there that an interpretation of an inkblot (or a picture drawing or sample of handwriting--other items used in projective testing) issues from a part of the self that reveals true feelings, rather than, say, creative expression? What justification is there for assuming that any given interpretation of an inkblot does not issue from a part of the self bent on deceiving others, or on deceiving oneself for that matter? Even if the interpretations issued from a part of the self which expresses desires, it is a long jump from having desires to having committed actions. For example, an interpretation may unambiguously express the desire to have sex with the therapist, but that does not imply either that the patient has had sex with the therapist or that the patient, if given the opportunity, would agree to have sex with the therapist.

Rorschach testing is inherently problematic. For one thing, to be truly projective the inkblots must be considered ambiguous and without structure by the therapist. Hence, the therapist must not make reference to the inkblot in interpreting the patient's responses or else the therapist's projection would have to be taken into account by an independent party. Then the third person would have to be interpreted by a fourth ad infinitum. Thus, the therapist must interpret the patient's interpretation without reference to what is being interpreted. Clearly, the inkblot becomes superfluous. You might as well have the patient interpret spots on the wall or stains on the floor. In other words, the interpretation must be examined as if it were a story or dream with no particular reference in reality. Even so, ultimately the therapist must make a judgment about the interpretation, i.e., interpret the interpretation. But again, who is to interpret the therapist's interpretation? Another therapist? Then, who will interpret his? etc.

To avoid this logical problem of having a standard for a standard for a standard, etc., the experts invented standardized interpretations of interpretations. Both form and content are standardized. For example, a patient who attends only to a small part of the blot is "indicative of obsessive personality;" while one who sees figures which are half-human and half-animal indicates that he is alienated, perhaps on the brink of schizophrenic withdrawal from people (Dawes, 148). If there were no standardized interpretations of the interpretations, then the same interpretations by patients could be given equally valid but different interpretations by therapists. What empirical tests have been done to demonstrate that any given interpretation of an inkblot is indicative of any past behavior or predictive of any future behavior? In short, interpreting the inkblot test is about as scientific as interpreting [dreams](#).

To have any hope of making the inkblot test appear to be scientifically valid, it was essential that it be turned into a non-projective test. The blots can't be considered completely formless, but must be given a standard response against which the interpretations of patients are to be compared as either good or bad responses. This is what John E. Exner did. The Exner System uses inkblots as a standardized test. On its face, the concept seems preposterous. Imagine admitting people into med school on the basis of such a standardized test! Or screening candidates for the police academy! ("I didn't get in because I failed the inkblot test.")

The Rorschach enthusiast should recognize that inkblots or dreams or drawings or handwriting may be no different in structure than spoken words or gestures. Each is capable of many interpretations, some true, some false, some meaningful, some meaningless. It is an unprovable assumption that dreams or inkblot interpretations issue from a source deep in the subconscious which wants to reveal the "real" self. The mind is a labyrinth and it is a pipe dream to think that the inkblot is Ariadne's thread which will lead the therapist to the center of the patient.

See related entries on [apophenia](#), [pareidolia](#) and [tarot cards](#).

further reading

[reader comments](#)

- [The Classical Rorschach](#)
- ["What's Wrong with This Picture?"](#) *Scientific American*, May 2001

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[Dineen, Tana. *Manufacturing Victims: What the Psychology Industry is Doing to People* \(Montreal: Robert Davies Multimedia Publishing, 1998\).](#)

[What's Wrong With the Rorschach?: Science Confronts the Controversial Inkblot Test](#) by James M. Wood, Teresa Nezworski, Scott O. Lilienfeld, Howard N. Garb (John Wiley 2003).

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electronic voice phenomenon (EVP)

Electronic voice phenomenon is the alleged communication by spirits through tape recorders and other electronic devices. The belief in EVP in the United States seems to have mushroomed thanks to Sarah Estep, president of the [American Association of Electronic Voice Phenomena](#), which claims to have members in some 40 states and publishes a newsletter. Estep claims that in the 1970s she started picking up voices on her husband's Teac reel-to-reel recorder. She is sure that the voices are spirits, proving there is life after death. Estep also claims to hear [voices of aliens](#) on some of her tapes. She says she has taped some 20,000 ghosts and aliens. Aliens don't speak English, however, so she is not sure what they are saying.

Interest in EVP apparently began in the 1920s. An interviewer from *Scientific American* asked Thomas Edison about the possibility of contacting the dead. Edison, a man of no strong religious views, said that nobody knows whether “our personalities pass on to another existence or sphere” but

it is possible to construct an apparatus which will be so delicate that if there are personalities in another existence or sphere who wish to get in touch with us in this existence or sphere, this apparatus will at least give them a better opportunity to express themselves than the tilting tables and raps and ouija boards and mediums and the other crude methods now purported to be the only means of communication. (Clark 1997: 235)

There is no evidence, however, that Edison ever designed or tried to construct such a device. And he probably did not foresee spirits communicating with our tape recorders and television sets.

While it is impossible to prove that all EVPs are due to natural phenomena, skeptics maintain that they are probably due to such things as [interference](#) from a nearby CB operator or [cross modulation](#).

See **related entries** on [automatic writing](#), [channeling](#), [ghosts](#), [mediums](#), [ouija board](#), and [spiritualism](#).

further reading

[reader comments](#)

- [Ghost-tronics \(listen up\)](#)

[Clark, Ronald W. 1977. *Edison - The Man Who Made the Future*. G. P. Putnam's Sons.](#)

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[electromagnetic fields](#)

[empiricism](#)



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numerology

Numerology is the study of the occult meanings of numbers and their influence on human life. Some alleged [psychics](#), like [Uri Geller](#), claim that numerology helps them understand events such as the terrorist attacks on September 11, 2001.

According to an advertisement in *Parade* magazine (Feb.25, 1996), the definitive text on numerology was written by Matthew Goodwin, an MIT graduate who once worked in the personnel department of an architectural firm. He learned "this science of numbers" (as he calls it) from a clerk at the office. The ad is a pseudo-article, a print "infomercial," allegedly authored by J.J. Leonard, who is probably Goodwin himself, since the ad is nothing more than an invitation to send him \$9 for a numerological reading worth "\$80 or more." In his advertisement, he explains how numerology works.

It all starts with your name and birth date. They are the data base from which a numerologist is able to describe you, sight unseen. Number values are assigned to the letters in your name. By adding these--with the numbers in your birth date--in a multitude of combinations, a numerologist establishes your key numbers. He then interprets the meaning of these key numbers, which results in a complete description of your personal characteristics.

According to Mr. Goodwin, through numerology you can "see all the diverse parts of your personality and how they uniquely come together to make the person you are." This will enable you to "make the most of your strengths in a way that wasn't possible before."

Just what do you think the numerical odds are either (a) that a set of numbers associated with the letters of your name and your birth date will reveal who you are and what you should do with your life, or (b) that someone in personnel has figured out how to read those numbers? I'd say the odds are about zero. Nevertheless, numerology shouldn't be brushed off without a thorough examination of its underlying theory. Unfortunately, there doesn't seem to be any. We are just supposed to take Mr. Goodwin's word for it that numerology works, even though we have no idea how it works. That is, numerologists can produce a "reading" for you, just as [astrologers](#), [biorhythmists](#) and [Myers-Briggs](#) can. And you will be amazed at how "accurate" the reading is! You may not even be aware at how [selective your thinking](#) has become as you are dazzled by the accuracy of your reading.

When you get your reading, you may find yourself ignoring the parts that don't fit you at all, and focusing on those parts that do seem to fit. They may actually fit you or they may fit your image of how you would like to be. No matter; if they fit, you may fall for it. You may even be tempted to go one step further and call your own personal psychic on one of the "friends" psychic hotlines. (I think the \$9 numerology reading might be cheaper, though.) The [testimonials](#) for numerology and the telephone psychics are quite similar. Marriages are saved, jobs are landed, personal problems are resolved and love is found.

Some of the attractiveness of numerology and psychics comes from the desire to find somebody who will tell you that you are full of hidden strengths and powers, and who will reinforce your deepest needs and emotions. Yet, one must be desperate if one doesn't mind that the encouragement comes from a total stranger with no knowledge of who you are. Of course, some people are simply waiting for somebody else to tell them what to do with their lives. On the other hand, at times, each of us is vulnerable. We feel unloved, misunderstood, confused, or rudderless. The testimonials sound good or a friend is a satisfied customer, so we give it a try.

But the real attractiveness of numerology, over say [palm](#) or [crystal](#) reading or other non-numerical personality analysis and prophecy, is that numbers give the quackery an aura of both scientific and mystical authoritativeness, especially if complex statistical analysis is involved. The ad mentioned above for Mr. Goodwin's \$9 numerological reading, cites Pythagoras as the father of numerology. Certainly, the Pythagoreans were a cult with esoteric notions about the universe and numbers, including the notion of the harmony of the spheres. No doubt they found something mystical about the relations of sides of triangles, which we have come to know as the Pythagorean theorem. But there is no evidence that Pythagoras thought he could analyze his disciples' personalities by assigning numbers to the letters of their names and their birth dates. For one thing, he would have realized the unreasonableness of such a notion. Different languages have different alphabets; different cultures use different calendars. It is unreasonable enough to think the universe is arranged according to numerical transcriptions of names, but to think that there are several equivalent transcriptions to accommodate cultural differences stretches the limits of credibility almost to infinity. Even if the universe were so unreasonably designed, how would we ever know which "reading" of a person's numbers is the "correct" one? Does the concept of "correct reading" even have meaning in this so-called discipline?

It is one thing to recognize that many things in the universe can be explained by reduction to mathematical formulae. The formulae can be tested and demonstrated to be accurate or not. It is quite another to claim that somehow the name you are given at birth was preordained to coincide with the date of your birth and to be coordinated with certain numbers so that certain special people (the numerologists!) could calculate from this data who you are, what

you will be, what you need and feel, and what you should do. It is a long, long way from Plato's admonition to those entering his Academy that they should know geometry, or from Galileo's assertion that Nature is written in the language of mathematics, to the notion that numbers related to my name are a key to who I am pre-destined to be. It is a misrepresentation of history to cite mathematical mystics or scientists who have been enamored of mathematics, as fellow travelers. In any case, even if Pythagoras, Plato, Kepler, Galileo, and Einstein were all numerologists it would not make the theory of numerology one iota more plausible.

See **related entries** on [astrology](#), [the Bible Code](#), [biorhythms](#), [confirmation bias](#), the [enneagram](#), [the Forer effect](#), [Uri Geller](#), [the Kabbalarian philosophy](#), [the law of truly large numbers](#), [occult statistics](#) and [selective thinking](#).

further reading

- [Number Watch](#) - **All about the scares, scams, junk, panics, and flummery cooked up by the media, politicians, bureaucrats, so-called scientists and others who try to confuse you with wrong numbers.**
- [Coincidences: Remarkable or Random?](#) by Bruce Martin
- [My Pet Number 142857](#) by Douglas Twitchell

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[Nostradamus](#)



[Occam's razor](#)

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The Bible (or Torah) Code

The Bible (or Torah) Code is a code alleged to have been intentionally embedded in the Bible. The code is revealed by searching for equidistant letter sequences (ELS). For example, start with any letter ("N") and read every n^{th} letter ("D") thereafter in the book, not counting spaces. If an entire book such as *Genesis* is searched, the result is a long string of letters. Using different values for "N" and "D", one can generate many strings of letters. Imagine wrapping the string of letters around a cylinder in such a way that all the letters can be displayed. Flatten the cylinder to reveal several rows with columns of equal length, except perhaps the last column which might be shorter than all the rest. Now search for meaningful names in proximity to dates. Search horizontally, vertically, diagonally, any which way. A group of Israeli mathematicians did just this and claimed that when they searched for names in close proximity to birth or death dates (as published in the *Encyclopedia of Great Men in Israel*) they found many matches. Doron Witztum, Eliyahu Rips and Yoav Rosenberg published their findings in the journal *Statistical Science* (1994, Vol. 9, No. 3, 429-438) under the title of "[Equidistant Letter Sequences in the Book of Genesis.](#)" The editor of the journal commented:

When the authors used a randomization test to see how rarely the patterns they found might arise by chance alone they obtained a highly significant result, with the probability $p=0.000016$. Our referees were baffled: their prior beliefs made them think the *Book of Genesis* could not possibly contain meaningful references to modern-day individuals, yet when the authors carried out additional analyses and checks the effect persisted.

That is, the probability of getting the results they did was 16 out of one million or 1 out of 62,500. The authors state: "Randomization analysis shows that the effect is significant at the level of 0.00002 [and] the proximity of ELS's with related meanings in the Book of Genesis is not due to chance." Harold Gans, a former cryptologist at the US Defense Department, replicated the work of the Israeli team and agreed with their conclusion. [Witztum](#) later claimed that, according to one measure, the probability of getting these results by chance is 1 in 4 million. Though he has apparently changed his mind and now claims that the probability is $p = 0.00000019$ (1 out of 5.3 million). Jason Browning, a [creation scientist](#), claims that the first *five* books of the Bible contain hidden word patterns that have been "shown mathematically to be impossible to have occurred by chance." Browning does not mention who did the math for him.

As further evidence of the statistical significance of their results, the Israeli team analyzed the Hebrew version of the *Book of Isaiah* and the first 78,064 characters of a Hebrew translation of Tolstoy's *War and Peace*. They found many names in close proximity to birth or death dates, but the results were statistically insignificant. (The *Book of Genesis* used in their study, the Koren version, has 78,064 characters.)

What does this all mean? To some it means that the patterns in *Genesis* are intentional and that God is the ultimate author of the code. If so, should the *Book of Isaiah*, and any other book in the Bible that fails the ELS test, be dumped? Should we conclude that these statistics verify the claim that the Jews are the chosen people of God or that no more names should be added to list of Great Men in Israel unless they pass the ELS test? Unless other religions can duplicate such statistically improbable results, the mathematically minded supernaturalist might well consider them to be imposters. Should we translate all the sacred books of all the religions of the world into Hebrew and see how many great men of Israel are encoded there? Many of us are at a loss at what to make of such astounding numbers.

Can a computer really read the mind of God? Apparently. For on this theory God dictated in His favorite language, Hebrew, a set of words which are more or less intelligible if taken at face value, containing stories of creation, floods, fratricide, wars, miracles, etc., with many moral messages. But this Hebrew God chose his words carefully, encoding the Bible with prophecies and messages of absolutely no religious value.

Many, however, are not at a loss at all. Some Christian "creation scientists" are claiming the Bible Code provides [scientific proof](#) of God's existence. If they are right, they should convert to Judaism. Doran Witztum can't do that, since he is already a Jew. But he has taken the work done on *Genesis* a bit further than his colleagues. Witztum went [on Israeli television](#) and claimed that the names of the sub-camps on a map of Auschwitz appeared remarkably close to the phrase "in Auschwitz." The odds of such occurring, he said, are "one in a million." Some of his students did the math and claim their mentor was off by "a factor of 289,149." Witztum's math may not be as good as his intentions, but it is difficult to see what those intentions might be. Was God revealing in an odd way that the sub-camps of Auschwitz are in Auschwitz?

Michael Drosnin and admirers of his popular book, *The Bible Code*, are claiming that decoding the Bible allegedly leads to the discovery of prophecies and profound truths of a secular nature, not all of which are related to the Jews. Drosnin claims that the Bible is the only text in which these encoded phrases are found in a statistically significant pattern, and that the chance of this being a random phenomenon is unlikely. Using the ELS method, Drosnin claims that the assassination of Yitzhak Rabin was foretold in the Bible. He also claims that the assassinations of Anwar Sadat and the Kennedy brothers are encoded in Biblical ELS. At last, someone has found a

truly useful purpose for computers: doing ELS analyses of Biblical texts in search of hidden messages of a secular nature. The Lord loveth a puzzle.

Not everybody agrees with the Drosnin hypothesis, including Harold Gans, the retired Defense Department cryptologist who corroborated the work of Witztum, Rips and Rosenberg. Gans has [published a statement](#) regarding *The Bible Code* and other similar books. In part, the statement reads

The book states that the codes in the Torah can be used to predict future events. This is absolutely unfounded. There is no scientific or mathematical basis for such a statement, and the reasoning used to come to such a conclusion in the book is logically flawed. While it is true that some historical events have been shown to be encoded in the Book of Genesis in certain configurations, it is absolutely not true that every similar configuration of "encoded" words necessarily represents a potential historical event. In fact, quite the opposite is true: most such configurations will be quite random and are expected to occur in any text of sufficient length. Mr. Drosnin states that his "prediction" of the assassination of Prime Minister Rabin is "proof" that the "Bible Code" can be used to predict the future. A single success, regardless of how spectacular, or even several such "successful" predictions proves absolutely nothing unless the predictions are made and evaluated under carefully controlled conditions. Any respectable scientist knows that ["anecdotal" evidence](#) never proves anything.

Dr. Eliyahu Rips, one of the authors of the study that started the Bible Code craze, has also made a [public statement](#) regarding Drosnin's *Bible Code*.

I do not support Mr. Drosnin's work on the Codes, nor the conclusions he derives....All attempts to extract messages from Torah codes, or to make predictions based on them, are futile and are of no value. This is not only my own opinion, but the opinion of every scientist who has been involved in serious Codes research.

Professor [Menachem Cohen](#), a celebrated Bible scholar at Bar-Ilan University, has criticized Witztum et al. on two counts: (1) there are several other Hebrew versions of *Genesis* for which ELS does not produce statistically significant results; and (2) the appellations given to the Great Men in Israel was inconsistent and arbitrary. The Professor makes some good points, but perhaps this just proves that the Koren version is the correct one and that the appellations chosen are the most fitting for these great men of Israel.

Other critics, such as [Brendan McKay](#), have done their own analysis of *War and Peace* with remarkably different results than those reported by Witztum et al. Many critics, however, have done little more than use ELS to find names, dates, etc., in various books, a feat already [known by even the puniest of statisticians to be unremarkable](#). However, Drosnin seemed to ask for such when he said "When my critics find a message about the assassination of a prime minister encrypted in *Moby Dick*, I'll believe them." McKay promptly produced [an ELS analysis of *Moby Dick*](#) predicting not only Indira Ghandi's assassination, but the assassinations of Martin Luther King, John F. Kennedy, Abraham Lincoln, and Yitzhak Rabin, as well as the death of Diana, Princess of Wales. Mathematician David Thomas [did an ELS on *Genesis*](#) and found the words "code" and "bogus" close together not once but 60 times. What are the odds of that happening? Does this mean that God put in a code to reveal that there is no code? The way of the Lord is mysterious, indeed.

See related entries on [divination](#), the [cabala](#) and [numerology](#).

further reading

[reader comments](#)

- [In Search of Mathematical Miracles](#) by Brendan McKay
- [Harold Gans' Article on methodology](#)
- [Report on new ELS tests of Torah \(29 May 1997\)](#) by Dror Bar-Natan, Alec Gindis, Aryeh Levitan and Brendan McKay
- [Cracking "The Bible Code" by D. Trull](#)
- [Mathematical Miracles in the Qur'an or the Bible?](#)
- [Torah Codes](#) - Dorun Witztun Speaks Out
- [Statistics Crack 'Bible Code' Theory Postulated Hidden Modern Facts in Document](#)
- [Number Watch](#) - **All about the scares, scams, junk, panics, and flummery cooked up by the media, politicians, bureaucrats, so-called scientists and others who try to confuse you with wrong numbers.**

Thomas, David E. "Hidden Messages and The Bible Code," *Skeptical Inquirer*, November/December 1997.

Witztum, D., E. Rips and Y. Rosenberg, ["On Equidistant Letter Sequences in the Book of Genesis,"](#) *Statistical Science*, 9 (1994), 429-438.

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[Bermuda Triangle](#)

[Bigfoot](#)



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ganzfeld experiment

*Most sciences try to explain observable phenomena;
parapsychology tries to observe unexplainable phenomena.*
RTC

The ganzfeld ("total field") experiment uses a kind of sensory deprivation to test for [psi](#). Ping-Pong balls are put over each subject's eyes and headphones are placed over the ears. While white noise is played through the headset, a bright red light is shown through the ping pong balls. It doesn't take long before the subject begins to hallucinate. At this point, others in another room are shown a visual stimulus such as a short video clip. They try to transmit telepathically what they are seeing to the subject in the ganzfeld.

The video clips or other visual stimuli are selected randomly from a large set of items. While the sender concentrates on the target, the receiver provides a continuous verbal report of his or her images. Images seen by the viewers are compared with the images seen by the subjects. Finally, "at the completion of the ganzfeld period, the receiver is presented with several stimuli (usually four) and, without knowing which stimulus was the target, is asked to rate the degree to which each matches the imagery and mentation experienced during the ganzfeld period. If the receiver assigns the highest rating to the target stimulus, it is scored as a "hit." Thus, if the experiment uses judging sets containing four stimuli (the target and three decoys or control stimuli), the hit rate expected by chance is .25" [Bem and Honorton].

The hypothesis of parapsychologist Charles Honorton, the creator of the ganzfeld experiments, is that if psi exists, there should be a greater than chance match between the images of the senders and receivers. Honorton has reported studies such as one with 240 subjects who were right 34% of the time. This is not likely due to chance. The question is, is it due to psi? It could be. It could also be due to something else, something which correlates strongly with the selection of the video clips or other selected visual stimuli, such as age or gender of the subjects, or content or theme of the visual images. Chance could be involved, though it is very unlikely. In any case, before Honorton gets his Nobel Prize, others need to replicate the study and make very persuasive arguments that the only plausible explanation is psi.

Rick E. Berger, Ph.D., the creator of the [automated ganzfeld](#) (and coauthor with Honorton on several ganzfeld papers) objects to the above conclusion, which he claims is "seriously outdated or you are unaware of the replications and published meta-analyses of this literature." Dr. Berger quotes the

illustrious [Dean Radin](#):

From 1974 to 1997, some 2,549 ganzfeld sessions were reported in at least forty publications by researchers around the world. After a 1985 meta-analysis established an estimate of the expected hit rate, a six-year replication was conducted that satisfied skeptics' calls for improved procedures. That "autoganzfeld" experiment showed the same successful results.

"The overall hit rate for the 2,549 sessions was 33.2% (where 25% was expected) yielding odds against chance of a million billion to one," says Berger. This sounds impressive until you examine the claim ever so slightly. The Ganzfeld is set up so that an interpretation must be made of a verbal report from the test subject to be matched against an image allegedly sent telepathically to the subject. Thus, even if an image bears little or no resemblance to the verbal description, if it is selected as the one most closely resembling the image verbally described, then it counts as a hit. For example, here is a verbal description taken from Dr. Berger's website on the ganzfeld:

**I see the Lincoln Memorial...
And Abraham Lincoln sitting there... It's
the 4th of July... All kinds of fireworks...
Now I'm at Valley Forge... There are
fireworks... And I think of bombs
bursting in the air... And Francis Scott
Key... And Charleston...**

There are quite a few images that would "match" this description, since the description itself contains at least eight distinct images (the Lincoln memorial, Lincoln, 4th of July, fireworks, Valley Forge, bombs, Francis Scott Key, Charleston) to which one could easily add a couple more, such as the American flag, the star spangled banner, and, oh yes, George Washington, which was the image selected as most closely resembling the verbal description. We're not told what the other three choices were.

One wonders why, if this 8.2%, million billion to one, difference is evidence of telepathy, the verbal descriptions are not more precise. For example, why didn't the psychic "see" George Washington, since that was what the image was? Why did he see the Lincoln memorial and a bunch of other things? How can they be sure of what they are measuring? Why isn't the subject allowed to choose "none"? Shouldn't the experimenters have some cases where the sender doesn't really send anything? And shouldn't the receiver be able to say "I'm not getting any message at all"? If Berger and Honorton would do a ganzfeld where the sender sends no messages at all throughout the entire experiment, my guess is that the receiver would still "receive" and give a verbal description of his vision. What would his vision be of? Would these

scientists say that the vision is one of the imagination or would they say that someone, somewhere, sent some message and the subject picked it up? How can they be sure, in fact, that their subjects are not picking up messages from others besides the sender? Perhaps the reason the subjects fail 66.8% of the time is because they are picking up messages from the wrong senders. Maybe there is 100% telepathy. Or maybe something else is going on besides telepathy.

In any case, [Julie Milton and Richard Wiseman](#) recently published their own meta-analysis of ganzfeld studies and concluded that "the ganzfeld technique does not at present offer a replicable method for producing ESP in the laboratory" (1999).

further reading

- ["The Evidence for Psychic Functioning: Claims vs. Reality"](#) by Ray Hyman
- [The Best Case for ESP?](#) by Matt Nisbet, *Skeptical Inquirer*
- [Science Frontiers on the Ganzfeld experiments](#)
- [The Automated Ganzfeld](#)
- ["Does Psi Exist?"](#), by Daryl J. Bem and Charles Honorton, *Psychological Bulletin*, 1994, Vol. 115, No. 1, 4-18.
- [Anomalous Cognition](#)
- [What's the story on "ganzfeld" experiments?](#) The Straight Dope

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[gambler's fallacy](#)



[Uri Geller](#)

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divination (fortune telling)

Divination is the attempt to foretell the future or discover occult knowledge by interpreting omens or by using paranormal or supernatural powers. The list of items that have been used in divination is extraordinary. Below are listed just a few. Many end in 'mancy', from the ancient Greek *manteia* (divination), or 'scopy', from the Greek *skopein* (to look into, to behold).

- aeluromancy (dropping wheatcakes in water and interpreting the result)
- aeromancy (divination by examining what the air does to certain things)
- alectoromancy or alectryomancy (divination by a cock: grains of wheat are placed on letters and the cock "spells" the message by selecting grains)
- alphitomancy (dropping barleycakes in water and interpreting the result)
- anthropomancy (divination by interpreting the organs of newly sacrificed humans)
- astragalomancy or astragyromancy (using knucklebones marked with letters of the alphabet)
- [astrology](#)
- axinomancy (divination by the hatchet: interpreting the quiver when whacked into a table)
- belomancy (divination by arrows)
- bronchiomancy (divination by studying the lungs of sacrificed white llamas)
- capnomancy (divination by the smoke of an altar or sacrificial incense)
- [cartomancy](#)
- [catoptromancy or crystallo-mancy \(using mirrors or lenses\)](#)
- cephalomancy (divination by a donkey's head)
- [chiromancy \(palmistry\)](#)
- cleidomancy (divination by interpreting the movements of a key suspended by a thread from the nail of the third finger on a young virgin's hand while one of the Psalms was recited)
- coscinomancy (divination by a balanced sieve)
- cromniomancy (divination by onions)
- dactylomancy (divination by means of rings put on the fingernails or the number of whorls and loops on the fingers)
- daphnomancy (divination using the laurel branch: how did it crackle when burned?)
- [dowsing](#)
- extispicy (divination by examining entrails)
- fractomancy (interpreting the structures of fractal geometric patterns)

- [geomancy](#)
- gyromancy (divination by walking around a circle of letters until dizzy and one falls down on the letters or in the direction to take)
- haruspicy (inspecting the entrails of slaughtered animals)
- hydromancy (divination by examining what certain things do in water or when taken out of water, such as coffee grounds or tea leaves); hydatoscopy (if rainwater is used); pegomancy (if spring-water is used)
- hepatoscopy or hepatomancy (divination by examining the liver of sacrificed animals)
- kephalomancy (burning carbon on the head of an ass while reciting the names of suspected criminals; if you're guilty, a crackling sound will be heard when your name is spoken)
- lampadomancy (interpreting the movements of the flame of a lamp)
- libanomancy (interpreting the smoke of incense)
- lithomancy (divination using precious stones)
- lecanomancy (dropping precious stones into water and listening for whistles)
- margaritomancy (divination by the pearl: if it jumps in the pot when a person is named, then he is the thief!)
- [metoposcopy](#) (interpreting frontal wrinkles)
- molybdomancy (divination by melted lead: interpreting its noises and hisses when dropped into water)
- myrmomancy (divination by watching ants eating)
- necromancy (communicating with spirits of the dead to predict the future)
- oinomancy (divination by wine)
- omphalomancy (interpretation of the belly button)
- [oneiromancy](#) (interpretation of dreams)
- onychomancy (interpreting the reflection of sun rays off fingernails)
- ornithomancy or orniscopy (interpreting the flights of birds)
- ovomancy or oomancy or ooscopy (breaking eggs into a container of water and interpreting the shape of the egg white)
- [papyromancy](#) (divination by folding paper)
- pyromancy or pyroscopy (divination by fire)
- [rhabdomancy](#) (using the divining rod or magic wand)
- rhapsodmancy (divination by a line in a sacred book that strikes the eye when the book is opened after the diviner prays, meditates or invokes the help of spirits)
- [scapulamancy](#)
- [scrying](#)
- sideromancy (interpreting straws thrown on a red-hot iron)
- skatharomancy (interpreting the tracks of a beetle crawling over the grave of a murder victim)
- splanchnomancy (reading cut sections of a goat liver)
- [stichomancy](#)
- tasseography (reading tea leaves)

- tiromancy (interpreting the holes or mold in cheese)
- urim v'tumim (reading sacred stones attached to the breastplate of the high priest in ancient Judaism)
- uromancy (divination by reading bubbles made by urinating in a pot)

further reading

[readers comments](#)

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[dianetics](#)

[the divine fallacy](#)



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[Virgin Mary visits Australia](#)

[Virgin Mary visits Canada](#)

[Jesus in a No Parking sign](#)

[Virgin Mary appearing in frost](#)

[Ganesh in a potato?](#)

[Jesus in a blood stain?](#)

[Mold, Not Body Part, Found In Punch](#)

pareidolia

Pareidolia is a type of illusion or misperception involving a vague or obscure stimulus being perceived as something clear and distinct. For example, [in the discolorations of a burnt tortilla one sees the face of Jesus Christ](#).

Or one sees the image of [Mother Theresa or Ronald Reagan in a cinnamon bun](#) or [the face of a man in the moon](#).



Under ordinary circumstances, pareidolia provides a psychological explanation for many delusions based upon sense perception. For example, it explains many [UFO sightings](#), as well as the hearing of sinister [messages on records played backwards](#). Pareidolia explains Elvis, [Bigfoot](#), and [Loch Ness Monster](#) sightings. It explains numerous religious [apparitions](#) and visions. And it explains why some people see a face or a building in a photograph of the [Cydonia region of Mars](#).

Under clinical circumstances, some psychologists *encourage* pareidolia as a means to understanding a patient. The most infamous example of this type of clinical procedure is the [Rorschach ink blot](#) test.

Astronomer Carl Sagan claimed that the human tendency to see faces in tortillas, clouds, cinnamon buns, etc. is an evolutionary trait. He writes:

As soon as the infant can see, it recognizes faces, and we now know that this skill is hardwired in our brains. Those infants who a million years ago were unable to recognize a face smiled back less, were less likely to win the hearts of their parents, and less likely to prosper. These days, nearly every infant is quick to identify a human face, and to respond with a goony [sic] grin (Sagan, 45).

I think Sagan is right about the tendency to recognize faces, but I don't see any reason to think there is an evolutionary advantage in seeing replicas of paintings, ghosts, demons, etc. in inanimate objects. It seems more likely that the mind is making associations with shapes, lines, shadows, etc., and that these associations are rooted in desires, interests, hopes, obsessions, etc. Most people recognize illusions for what they are, but some become fixated on the reality of their perception and turn an *illusion* into a *delusion*. A little bit of critical thinking, however, should convince most reasonable persons that a

cinnamon bun that looks like mother Teresa or a burnt area on a tortilla that looks like Jesus are accidents and without significance. It is more likely that the Virgin Mary one sees in the reflection of a mirror or on the floor of an apartment complex or in the clouds has been generated from one's own imagination than that a person who has been dead for 2,000 years should manifest herself in such a mundane and useless fashion.

See related entries on [apophenia](#), [the face on Mars](#), [Our Lady of Watsonville](#), [Rorschach Ink Blot Test](#), [subliminal](#), and [the unconscious](#).

further reading

- [Grand Illusion](#)
- [Mars Face Breaks Under Questioning](#) by Pete Ford (Space.com)
- [Modern Miracles of Islam](#) (Allah's messages in a tomato, an egg, and some beans)

recent sightings

- **November 6, 2002 - The Virgin Mary appears in frost in Fond du Lac, Saskatchewan.**
- **July 20, 2002 - Our Lady of Guadalupe appears in the trees in West Chicago to Sebastian Cuaya and other Mexican-Americans.**
- **July 18, 2002 -- The Virgin Mary appeared [in a house window](#) in Ferraz Vasconcelos, Brazil. The owner refuses to let the window be examined scientifically.***
- **April 13, 2001 -- About 1,500 people flocked to a house in Pittsburgh's Brookline neighborhood after hearing reports that a vision of the Virgin Mary has appeared inside the home at night.**
- **January 26, 2002 -- Ella Huffin of Milwaukee, Wisconsin, saw the image of Jesus on a tree in her backyard. "News about Jesus on the tree has been bringing friends and family, neighbors and total strangers to Ella's house on Richards St. in Milwaukee's Riverwest neighborhood. She doesn't mind, so long as people are respectful. She's reasonably sure this is something meant to be shared."***
- **May 2000 -- The Bible seen written on the ocean floor.**
- **February 25, 2000 - Face of Jesus appears on church wall**

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[paratrinket](#)

[past life regression](#)



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Carl Jung (1875-1961), synchronicity & the collective unconscious

Carl Jung was a Swiss psychiatrist and colleague of Freud's who broke away from Freudian [psychoanalysis](#) over the issue of the [unconscious mind](#) as a reservoir of repressed sexual trauma which causes all neuroses. Jung founded his own school of analytical psychology.



Jung believed in [astrology](#), [spiritualism](#), [telepathy](#), [telekinesis](#), [clairvoyance](#) and [ESP](#). In addition to believing in a number of occult and paranormal notions, Jung contributed two new ones in his attempt to establish a psychology rooted in occult and [pseudoscientific](#) beliefs: *synchronicity* and the *collective unconscious*.

Synchronicity is an explanatory principle; it explains "meaningful coincidences" such as a beetle flying into his room while a patient was describing a dream about a scarab. The scarab is an Egyptian symbol of rebirth, he noted. Therefore, the propitious moment of the flying beetle indicated that the transcendental meaning of both the scarab in the dream and the insect in the room was that the patient needed to be liberated from her excessive rationalism. His notion of **synchronicity** is that there is an acausal principle that links events having a similar meaning by their coincidence in time rather than sequentially. He claimed that there is a synchrony between the mind and the phenomenal world of perception.

What evidence is there for synchronicity? None. Jung's defense is so inane I hesitate to repeat it. He argues that "acausal phenomena must exist...since statistics are only possible anyway if there are also exceptions" (1973, *Letters*, 2:426). He asserts that "...improbable facts exist--otherwise there would be no statistical mean..." (ibid.: 2:374). Finally, he claims that "the premise of probability simultaneously postulates the existence of the improbable" (ibid. : 2:540).

Even if there were a synchronicity between the mind and the world such that certain coincidences resonate with transcendental truth, there would still be the problem of figuring out those truths. What guide could one possibly use to determine the correctness of an interpretation? There is none except intuition and insight, the same guides that led Jung's teacher, [Sigmund Freud](#), in his interpretation of dreams. The concept of synchronicity is but an expression of [apophenia](#).

According to psychiatrist and author, Anthony Storr, Jung went through a period of mental illness during which he thought he was a prophet with "special insight." Jung referred to his "creative illness" (between 1913-1917) as a voluntary confrontation with the unconscious. His great "insight" was that he thought all his patients over 35 suffered from "loss of religion" and he had just the thing to fill up their empty, aimless, senseless lives: his own metaphysical system of *archetypes and the collective unconscious*.

Synchronicity provides access to the archetypes, which are located in the collective unconscious and are characterized by being universal mental predispositions not grounded in experience. Like Plato's Forms (*eidos*), the archetypes do not originate in the world of the senses, but exist independently of that world and are known directly by the mind. Unlike Plato, however, Jung believed that the archetypes arise spontaneously in the mind, especially in times of crisis. Just as there are meaningful coincidences, such as the beetle and the scarab dream, which open the door to transcendent truths, so too a crisis opens the door of the collective unconscious and lets out an archetype to reveal some deep truth hidden from ordinary consciousness.

Mythology, Jung claimed, bases its stories on the archetypes. Mythology is the reservoir of deep, hidden wondrous truths. Dreams and psychological crises, fevers and derangement, chance encounters resonating with "meaningful coincidences," all are gateways to the collective unconscious, which is ready to restore the individual psyche to health with its insights. Jung maintained that these metaphysical notions are scientifically grounded, but they are not empirically testable in any meaningful way. In short, they are not scientific at all, but [pseudoscientific](#).

See **related entries** on [apophenia](#), [psychoanalysis](#) and [pseudoscience](#).

further reading

- [Coincidences: Remarkable or Random?](#) by Bruce Martin, *Skeptical Inquirer*, Sept/Oct 1998
- [Jung and the Mandala](#)
- [A Biographical Sketch of Jung](#) by Marc Fonda
- [The C.G. Jung Page](#)
- [CARL JUNG 1875 - 1961](#) by Dr. C. George Boeree

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[joy touch](#)

[Kabbalarian philosophy](#)

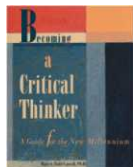


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[Becoming
a Critical Thinker](#)

by Robert T. Carroll

appeal to authority

The appeal to authority is a fallacy of irrelevance when the authority being cited is not really an authority. E.g., to appeal to Einstein to support a point in religion would be to make an irrelevant appeal to authority. Einstein was an expert in physics, not religion. However, even if he had been a rabbi, to appeal to Rabbi Einstein as evidence that God exists would still be an irrelevant appeal to authority because religion is by its very nature a controversial field. Not only do religious experts disagree about fundamental matters of religion, many people believe that religion itself is false. Appealing to non-experts as if they were experts, or appealing to experts in controversial fields, as evidence for a belief, are equally irrelevant to establishing the correctness of the belief.

The irrelevant appeal to authority is a type of *genetic fallacy*, attempting to judge a belief by its origin rather than by the arguments for and against the belief. If the belief originated with an authoritative person, then the belief is held to be true. However, even authoritative persons can hold false beliefs.

Appeals to authority do not become relevant when instead of a single authority one cites *several* experts who believe something is true. If the authorities are speaking outside of their field of expertise or the subject is controversial, piling up long lists of supporters does not make the appeal any more relevant. On any given controversial matter there are likely to be equally competent experts on different sides of the issue. If a controversial claim could be established as true because it is supported by experts, then contradictory beliefs would be true, which is absurd. The truth or falsity, reasonableness or unreasonableness, of a belief must stand independently of those who accept or reject the belief.

Finally, it should be noted that it is not irrelevant to cite an authority to support a claim one is not competent to judge. However, in such cases the authority must be speaking in his or her own field of expertise and the claim should be one that other experts in the field do not generally consider to be controversial. In a field such as physics, it is reasonable to believe a claim about something in physics made by a physicist that most other physicists consider to be true. Presumably, they believe it because there is strong evidence in support of it. Such beliefs could turn out to be false, of course, but it should be obvious that no belief becomes true on the basis of who believes it.

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- [Nizkor on the appeal to authority](#)

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apport

An apport is an object allegedly materializing during a [séance](#). Believers see apports as signs or gifts from spirits. Skeptics see them as evidence of [conjuring](#).

Good magicians and good [mediums](#) can produce objects seemingly out of nowhere and nothing. They can also make objects seem to disappear. When a medium does this it is referred to as a [deport](#).

See **related entries** on [deport](#) and [teleportation](#).

further reading

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

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séance

A séance is a [spiritualist](#) meeting to receive communications from the dead. Usually, a group is led by a [medium](#) in a very dark room (to make deception easier) who, often with an assistant, produces noises and voices, and moves things about the room, insisting these are caused by spirits of the dead.

See related entries on [apport](#), [automatic writing](#), [channeling](#), [electronic voice phenomenon](#), [medium](#), [ouija board](#), and [spiritualism](#).

further reading

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

[Rawcliffe, Donovan Hilton. *Occult and Supernatural Phenomena* \(New York: Dover Publications, 1988\).](#)

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[scrying](#)

[selective thinking](#)



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conjuring

Conjuring is the art of legerdemain, of magical tricks, of performance of feats seemingly requiring the assistance of supernatural powers or forces.

To conjure is to summon a demon or spirit by [invocation](#) or [incantation](#).

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[According to a Gallup poll, belief that some people can hear communications from the dead has increased from 18% to 26% over the past decade.](#)

medium

In [spiritualism](#), a medium is one with whom spirits communicate directly. In an earlier, simpler but more dramatic age, a good medium would produce voices or [apports](#), ring bells, float or move things across a darkened room, produce [automatic writing](#) or [ectoplasm](#), and, in short, provide good entertainment value for the money.

Today, a medium is likely to write bathetic inspirational books and say he or she is [channeling](#), such as J.Z. Knight and the *White Book* of her [Ramtha](#) from Atlantis. Today's most successful mediums, however, simply claim the dead communicate through them. Under a thin guise of doing "spiritual healing" and "grief counseling," they use traditional [cold reading](#) techniques and surreptitiously gathered information about their subjects to give the appearance of transmitting comforting messages from the dead. Using the information provided them by their clients either during the cold reading or from other sources, such as conversations with the subjects before the readings or during breaks from studio sessions, they are able to convince many clients that they are getting messages from their dead loved ones. The medium passes on messages from the dead such as "he forgives you" or reveals things that are already known but leave the client wondering *how did the he know that?* In the good old days of [séances](#) and elaborate trickery, a spiritualist fraud would be more likely to pass on the message "give more money to me and my group" (Keene 1997).

Today, it is unnecessary to be so crude as to directly ask for money or prey upon elderly persons who have lots of cash and little time. People are literally waiting for years to give money to those who give hope that a dead loved one will communicate with them. There is also a lucrative book business for those who have messages from the dead and there is good money to be made by doing live shows for hundreds or thousands of people, each of whom pays \$25 to \$50 for the chance to connect with a lost child, spouse, or parent. George Anderson, a former switchboard operator and author of *Lessons from the Light: Extraordinary Messages of Comfort and Hope from the Other Side* (2000), got his own ABC special featuring celebrities who wanted to contact the dead. Some mediums even get their own syndicated television programs, such as John Edward and [James Van Praagh](#), although the latter's show was canned by Tribune Media Services after only a few episodes.

See related entry on [psychics](#).

further reading

- [Deconstructing the Dead "Crossing over" to expose the tricks of popular spirit mediums](#) by Michael Shermer, *Scientific American*, Aug. 1, 2001
- [Talking to Heaven? Like Hell! The Spirited Trickery of James Van Praagh](#) by D. Trull
- [Talking to the Living Loved Ones of the Dearly Departed](#) by Gary P. Posner
- [Review of Psychic Medium Van Praagh on CNN's Larry King Live](#) by Joe Nickell
- ["A Guide to Cold Reading"](#) by Ray Hyman
- [Dead To Sue Van Praagh](#)
- [John Edward on Dateline with John Hockenberry](#)
- [Psychic show's past makes its future easy to see](#) by Jennifer Weiner (August 23, 2001)
- [Mass Media Bunk 15 \(Van Praagh, Edward, Sylvia Browne on Larry King\)](#) (March 6, 2001)
- [Mass Media Funk-4](#) (Michael Shermer & Van Praagh on ABC's 20/20) (April 3, 1998)
- [Mass Media Funk - 16 \(John Edward\)](#) (November 17, 2000)
- [Mass Media Funk - 23 \(Van Praagh\)](#)) (April 10, 2001)
- [Mass Media Bunk-4](#) (Larry King Live show, December 10, 1997)
- [Mass Media Bunk-6](#) (Charles Grodin show, March 5, 1998)
- [Mass Media Bunk-13](#) (CBS's 48 hours - [George Anderson](#), June 29, 2000)
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[materialism](#)

[memory](#)



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deport

A deport is the disappearance of an object during a [séance](#). Believers attribute a deport to paranormal forces. Skeptics attribute it to [conjuring](#). Good magicians and good [mediums](#) can make objects seem to disappear.

See **related entries** on [apport](#) and [teleportation](#).

further reading

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

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[déjà vu](#)

[dermo-optical perception](#)



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teleportation

Teleportation is the act or process of moving an object or person by [psychokinesis](#). The term originated with [Charles Fort](#), though he used it to describe magical transport between Earth and the heavens.

further reading

- [Quantum Teleportation](#)

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 [telepathy](#)

[testimonials](#) 

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argument from design

The argument from design is one of the "proofs" for the existence of God. In its basic form, this argument infers from the intelligent order and created beauty of the universe that there is an intelligent Designer and Creator of the universe. The argument has been criticized for begging the question: it *assumes* the universe is designed in order to prove that it is the work of a designer. The argument also suppresses evidence: for all its beauty and grandeur, the universe is also full of, well, to be delicate, let us say that the universe is also full of *nasties*. I suppose I should be more specific, but I think the reader knows the kind of thing I mean: babies born without brains, good people suffering monstrous tortures such as neurofibromatosis, evil people basking in the sun and enjoying power, reputation, etc. Volcanoes erupting, earthquakes rattling the planet, hurricanes and tornadoes blindly wiping out thousands of lives a day. Is it unfair to call these things the *nasties*, what is blithely referred to by theists as *non-moral evil* or *physical evil*? To say, as many defenders of Design do, that these nasties only seem nasty to us but we are ignorant of God's plan and vision and cannot know how good these nasties really are, is self-refuting. If we can't know what's good and what's not, we can't know whether the design, if any, is good or bad.

Paley's argument

One of the argument's more famous variations involves an analogy with a watch. William Paley (1743-1805), the Archdeacon of Carlisle, writes in his *Natural Theology* (1802):

In crossing a heath, suppose I pitched my foot against a stone and were asked how the stone came to be there, I might possibly answer that for anything I knew to the contrary it had lain there forever; nor would it, perhaps, be very easy to show the absurdity of this answer. But suppose I had found a *watch* upon the ground, and it should be inquired how the watch happened to be in that place, I should hardly think of the answer which I had before given, that for anything I knew the watch might have always been there.

The reason, he says, that he couldn't conceive of the watch having been there forever is because it is evident that the parts of the watch were put together for a *purpose*. It is inevitable that "the watch must have had a maker," whereas the stone apparently has no purpose revealed by the complex arrangement of its parts.

Darrow's response

One could, of course, attack Paley's argument at this point and say, as Clarence Darrow did, that some stones would be just as puzzling as a watch; for, they are complex and could easily have been designed by someone for some purpose we are unaware of, and, in any case "on close inspection and careful study the stone...is just as marvelous as the watch." Be that as it may, Paley's point was not that watches are inherently more interesting than stones. His point was that a watch could be seen to be analogous with the creation of the universe. The design of the watch implies an intelligent designer. This fact, says Paley, would not be diminished even if we discovered that the watch before us was the offspring (no pun intended) of another watch. "No one," he says, "can rationally believe that the insensible, inanimate watch, from which the watch before us issued, was the proper cause of the mechanism we so much admire in it--could be truly said to have constructed the instrument, disposed its parts, assigned their office, determined their order, action, and mutual dependency, combined their several motions into one result, and that also a result connected with the utilities of other beings."

Paley then goes on to claim that "every manifestation of design which existed in the watch, exists in the works of nature, with the difference on the side of nature of being greater and more, and that in a degree which exceeds all computation." The implication is that the works of nature must have had a designer of supreme intelligence to have contrived to put together such a magnificent mechanism as the universe. According to Darrow, this 'implication' is actually an *assumption*.

To say that a certain scheme or process shows order or system, one must have some norm or pattern by which to determine whether the matter concerned shows any design or order. We have a norm, a pattern, and that is the universe itself, from which we fashion our ideas. We have observed this universe and its operation and we call it order. To say that the universe is patterned on order is to say that the universe is patterned on the universe. It can mean nothing else.*

The problem with Paley's analogy is that the belief that the universe shows orderliness and purpose is an *assumption*. One quality of a good analogical argument is that the characteristics cited as shared characteristics must be truly shared characteristics. If there is doubt that one of the items being compared (the universe) possesses the most significant shared characteristic (of being orderly and purposive), then the analogical argument is not a sound one.

Hume's argument

Another philosopher, David Hume (1711-1776), took up the design analogy a few years before Paley, in his *Dialogues Concerning Natural Religion*. One of the characters, Philo, suggests that "If the universe bears a greater likeness to animal bodies and to vegetables than to the works of human art, it is more probable that its cause resembles the cause of the former than that of the latter, and its origin ought rather to be ascribed to generation or vegetation than to reason or design." (Book VII) "The world," says Philo, "plainly resembles more an animal or a vegetable than it does a watch or knitting-loom. Its cause, therefore, it is more probable, resembles the cause of the former. The cause of the former is generation or vegetation. The cause, therefore, of the world we may infer to be something similar or analogous to generation or vegetation." Hume, apparently thought the analogy was a joke, but perhaps Paley is still laughing from that Great Carrot Patch in the Sky.

I might find this watch analogy more convincing of Divine Purpose if, while observing it in his imaginary scenario, Paley's watch suddenly and for no reason shot a lightning bolt through his forehead. That would be more in harmony with the universe I have come to know and love. If the watch could give AIDS to anyone who touched it, or contaminate his progeny for endless generations, then I might be convinced that this watch is like the universe and indicative of a Grand Designer.

the apparent designed order

Finally, there is a [common and popular argument](#) that lists facts about nature that, if they were different, would mean that our planet or life on our planet would not exist. We wouldn't be here, it is noted,

- **if the sun were just slightly farther away or half as powerful**
- **if the axis of the earth were slightly different**
- **if the moon were larger or closer or farther away**
- **if gravity weren't such a weak force**
- **if DNA didn't replicate**
- **if molecules were larger or smaller**
- **if there were sixty planets in our solar system**
- **if carbon didn't exist**
- **if the speed of light were half what it is**
- **if genetic mutation did not happen**
- **if the rotation of the earth were one-tenth of what it is**

Furthermore, look at all the signs of design:

- **salmon, eels, birds, butterflies and whales are able to migrate and find the same breeding and feeding grounds year after year**
- **human reason which can conceive God**
- **natural ecological systems**

One cannot deny the facts. If things were different then things would be different. But they aren't different, so what is the point of this argument? The sun will be unable to support life on this planet some day. It is already unable to support life on several other planets. What does this fact prove about design? Nothing. The axis of the earth has been different and will be different again. Someday this planet will be uninhabitable. What does that prove about design, intelligent or otherwise? Nothing. We can't deny that if millions of factors did not occur, we wouldn't be here. So what? Many of these factors did not exist in the past and will not exist in the future on this planet. There was a time when there was no life on this planet and there will be a time when no life exists here in the future. There was a time when this planet did not exist and there will be a time in the future when it will not exist. What does that prove about design? Nothing. There are countless planets that exist which do not have the conditions necessary for life. What do they prove about design? Nothing.

One might argue that the odds are a billion billion to one that all these circumstances just happened to coincide that makes life on earth possible. But since we're here, the odds are 100% that it can happen. [Cressy Morrison](#) once argued

Suppose you put ten pennies, marked from one to ten, into your pocket and give them a good shuffle. Now try to take them out in sequence from one to ten, putting back the coin each time and shaking them all again. Mathematically we know that your chance of first drawing number one is one in ten; of drawing one and two in succession, one in 100; of drawing one, two and three in succession, one in 1000, and so on; your chance of drawing them all, from number one to number ten in succession, would reach the unbelievable figure of one in ten billion.

By the same reasoning, so many exacting conditions are necessary for life on the earth that they could not possibly exist in proper relationship by chance. The earth rotates on its axis 1000 miles an hour at the equator; if it turned at 100 miles an hour, our days and nights would be ten times as long as now, and the hot sun would likely burn up our vegetation each long day while in the long night any surviving sprout might well freeze.

Morrison begs the question. The earth with life on it is here. The odds are 1/1 of its existing. In any case, if I had 20 billion years to pull ten numbered pennies out of my pocket, the odds of me drawing out the coins in sequence at least once are very good.

But why chip away at this argument from rarity when we can use the

sledgehammer?

... rarity by itself shouldn't necessarily be evidence of anything. When one is dealt a bridge hand of thirteen cards, the probability of being dealt that particular hand is less than one in 600 billion. Still, it would be absurd for someone to be dealt a hand, examine it carefully, calculate that the probability of getting it is less than one in 600 billion, and then conclude that he must not have been dealt that very hand because it is so very improbable. --John Allen Paulos, [*Innumeracy: Mathematical Illiteracy and its Consequences*](#)

Are there naturalistic and mechanistic explanations for ecological systems and what is called "animal wisdom"? Of course. Does this prove they were not designed? Of course not. Nor does their existence prove design. Do we have to posit a God to explain how human reason came to exist with its ability to conceive of an infinite being? Of course not. Does this mean there is no God? Of course not. But it does mean that this argument from design is little more than an exercise in begging the question. It has to assume design in order to prove it.

The Meaning of Life

The theist thinks that life only makes sense if God exists. Why then does it seem obvious to atheists that everything makes just as much if not more sense if there is no God? Why does the universe seem perfectly intelligible to the atheist as an undesigned mechanism governed solely by natural, impersonal forces?

An atheist looks at the universe and what is known about it and sees that its alleged perfect order and design is pretty imperfect. They look at individual items which are wonderful in function but ridiculous in design and are led to think no omniscient being would design it this way. As Russell put it: who couldn't come up with a better world if given omnipotence, omniscience and billions of years to do it? An omniscient, omnipotent being might well be expected to use a much simpler and more effective design for the universe and most of the things in it. The very complexity and inherent defects of structures indicate, as Clarence Darrow noted, the lack of design and the result of natural forces working with no particular purpose in mind. You can use a complicated clamp to hold a few sheets of paper, but a paper clip is a much more elegant device for such a purpose. The orbits of the planets around our sun are a wonder to behold, but the asteroid belt, meteors, and comets crashing into planets is a strange touch for an omnipotent, all-good Creator. A healthy child has no match for exultation and hopefulness, but [conjoined twins](#) and other "freaks" of nature, as well as myriad [genetic birth defects](#), seem unworthy of benevolent design. The atheist sees a woman with a 200 pound tumor and thinks such a grotesque evil can't be allowed by an

omnipotent, all-Good God. But the patient and her parents think God helped the surgeons remove it and save her life. They don't blame God for the tumor but credit Him with its removal. They may even maintain that God had some fine and noble purpose in causing such suffering. The atheist finds such rationalization to be little more than [ad hoc hypothesizing](#).

The typical theistic response to the previous line of reasoning is to consider it impertinent. God is not bound by human conceptions of perfection or adequate design. What may appear inelegant, inefficient or imperfect to us may be just right according to God. But if one takes this line of reasoning to its logical conclusion, then we can safely say nothing about God at all. I maintain that the minimum standard God should be held to is what a reasonably competent group of intelligent humans could come up with. If this God can't do any better than that, then "perfection" has no meaning when applied to this being. If one maintains that the ways of God are essentially inscrutable, then anything goes. God could be anything, even pure evil, in that case.

See **related entries** on [atheism](#), God and [intelligent design](#).

* "The Delusion of Design and Purpose," Clarence Darrow, from [The Story of My Life](#) (New York: Scribner and Sons, 1932), cited in [Philosophy and Contemporary Issues](#), 6th ed., edited by John R. Burr and Milton Goldinger (New York: MacMillan Publishing Co., 1992), pp. 123-130.

further reading

[reader comments](#)

- [The Improbability of God](#) by Richard Dawkins
- [The Intelligent Design Movement](#) William A. Dembski
- [A Delicate Balance](#) Russell F. Doolittle

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[Stenger, Victor J. *Not by Design - The Origin of the Universe* \(Buffalo, N.Y.:](#)

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[a survey finds that 90 percent of Ohio science professors think intelligent design is not supported by scientific evidence](#)

[Objectivity and Design](#)

[Intelligent design? Cobb County shows why science, politics and religion don't mix](#) by Kevin Griffes

[Not the whole truth by Roger Downey](#) or Icons of Evolution vs. Evolution (or the Discovery Institute vs. PBS) May 16-22, 2002

[Science panel skips debate on evolution Education standards for Ohio don't mention intelligent design theory](#) By Reginald Fields

[Ohio emerges as next battleground for](#)

intelligent design

...the odds against DNA assembling by chance are $10^{40,000}$ to one [according to Fred Hoyle, *Evolution from Space*, 1981]. This is true, but highly misleading. DNA did not assemble purely by chance. It assembled by a combination of chance and the laws of physics. Without the laws of physics as we know them, life on earth as we know it would not have evolved in the short span of six billion years. The nuclear force was needed to bind protons and neutrons in the nuclei of atoms; electromagnetism was needed to keep atoms and molecules together; and gravity was needed to keep the resulting ingredients for life stuck to the surface of the earth.
--Victor J. Stenger*

... rarity by itself shouldn't necessarily be evidence of anything. When one is dealt a bridge hand of thirteen cards, the probability of being dealt that particular hand is less than one in 600 billion. Still, it would be absurd for someone to be dealt a hand, examine it carefully, calculate that the probability of getting it is less than one in 600 billion, and then conclude that he must not have been dealt that very hand because it is so very improbable. --John Allen Paulos, *Innumeracy: Mathematical Illiteracy and its Consequences*

Intelligent design is nothing more than creationism dressed in a cheap tuxedo. --Dr. Leonard Krishtalka, director of the University of Kansas Natural History Museum and Biodiversity Research Center

Intelligent design (ID) refers to the theory that intelligent causes are responsible for the origin of the universe and of life in all its diversity.*

Advocates of ID maintain that their theory is scientific and provides empirical proof for the existence of God or superintelligent aliens. They believe that design is empirically detectable in nature and in living systems. They claim that intelligent design should be taught in the science classroom because it is an alternative to the [scientific](#) theory of *natural selection*.

The arguments of the ID advocates may seem like a rehash of the [creationist](#) arguments, but the defenders of ID claim that they do not reject evolution simply because it does not fit with their understanding of the Bible. However, they present natural selection as implying the universe could not have been designed or created, which is nonsense. To deny that God has the power to create living things using natural selection is to assert something unknowable. It is also inconsistent with the belief in an omnipotent Creator.

One of the early-birds defending ID was UC Berkeley law professor [Philip E. Johnson](#), who seems to have completely misunderstood Darwin's theory of natural selection as implying (1) God doesn't exist, (2) natural selection could

[schools' evolution](#)

[debate](#) By KATE
BEEM

[Darwinism Under](#)

[Attack](#) - View that
'intelligent force'
shaped life attracts
students and troubles
scientists By BETH
MCMURTRIE,
*Chronicle of Higher
Education* 12/21/2001

The Vol. 8 No. 4
2001 issue of
[Skeptic magazine](#)
has several articles
and book reviews
on intelligent
design. It is well
worth a read.

only have happened randomly and by chance, and (3) whatever happens randomly and by chance cannot be designed by God. None of these beliefs is essential to natural selection. There is no inconsistency in believing in God the Creator of the universe and in natural selection. Natural selection could have been designed by God. Or, natural selection could have occurred even if God did not exist. Thus, the first of several fallacies committed by ID defenders is the false dilemma. The choice is not either natural selection or design by God or some other superintelligent creatures. God could have designed the universe to produce life by random events following laws of nature. God could have created superintelligent aliens who are experimenting with natural selection. Superintelligent aliens could have evolved by natural selection and then introduced the process on our planet. There may be another scientific theory that explains living beings and their eco-systems better than natural selection (or intelligent design). The possibilities may not be endless but they are certainly greater than the two considered by ID defenders.

Two scientists often cited by defenders of ID are Michael Behe, author of *Darwin's Black Box* (The Free Press, 1996), and William Dembski, author of *Intelligent Design: The Bridge between Science and Theology* (Cambridge University Press, 1998). Dembski and Behe are fellows of the [Discovery Institute](#), a Seattle research institute funded largely by Christian foundations. Their arguments are attractive because they are couched in scientific terms and backed by scientific competence. However, their arguments are identical in function to the [creationists](#): rather than provide positive evidence for their own position, they mainly try to find weaknesses in natural selection. As already noted, however, even if their arguments are successful against natural selection, that would not increase the probability of ID.

Behe is an Associate Professor of Biochemistry at Lehigh University. Behe's argument is not essentially about whether evolution occurred, but how it had to have occurred. He claims that he wants to see "real laboratory research on the question of intelligent design."^{*} Such a desire belies his indifference to the science/metaphysics distinction. There is no lab experiment relevant to determining whether God exists.

In any case, Behe claims that biochemistry reveals a cellular world of such precisely tailored molecules and such staggering complexity that it is not only inexplicable by gradual evolution, but that it can only be plausibly explained by assuming an intelligent designer, i.e., God. Some systems, he thinks, can't be produced by natural selection because "any precursor to an irreducibly complex system that is missing a part is by definition nonfunctional (39)." He says that a mousetrap is an example of an irreducibly complex system, i.e., all the parts must be there in order for the mousetrap to function. In short, Behe has old wine in a new skin: the [argument from design](#) wrapped in biochemistry. His argument is no more scientific than any other variant of the argument from design. In fact, most scientists, including scientists who are Christians, think Behe should cease patting himself on the back. As with all

other such arguments, Behe's begs the question. He must assume design in order to prove a designer. The general consensus seems to be that Behe is a good scientist and writer, but a mediocre metaphysician.

His argument hinges upon the notion of "irreducibly complex systems," systems that could not function if they were missing just one of their many parts. "Irreducibly complex systems ... cannot evolve in a Darwinian fashion," he says, because natural selection works on small mutations in just one component at a time. He then leaps to the conclusion that intelligent design must be responsible for these irreducibly complex systems. Biology professor (and Christian) Kenneth Miller responds:

The multiple parts of complex, interlocking biological systems do not evolve as individual parts, despite Behe's claim that they must. They evolve together, as systems that are gradually expanded, enlarged, and adapted to new purposes. As Richard Dawkins successfully argued in *The Blind Watchmaker*, natural selection can act on these evolving systems at every step of their transformation.*

Professor Bartelt writes

if we assume that Behe is correct, and that humans can discern design, then I submit that they can also discern poor design (we sue companies for this all the time!). In *Darwin's Black Box*, Behe refers to design as the "purposeful arrangement of parts." What about when the "parts" aren't purposeful, by any standard engineering criteria? When confronted with the "All-Thumbs Designer" - whoever designed the spine, the birth canal, the prostate gland, the back of the throat, etc, Behe and the ID people retreat into theology.* [I.e., *God can do whatever He wants, or, We're not competent to judge intelligence by God's standards, etc.*]

H. Allen Orr writes:

Behe's colossal mistake is that, in rejecting these possibilities, he concludes that no Darwinian solution remains. But one does. It is this: An irreducibly complex system can be built gradually by adding parts that, while initially just advantageous, become- because of later changes-essential. The logic is very simple. Some part (A) initially does some job (and not very well, perhaps). Another part (B) later gets added because it helps A. This new part isn't essential, it merely improves things. But later on, A (or something else) may change in such a way that B now becomes indispensable. This process continues as further parts get folded into the system. And at the end of the day,

many parts may all be required.*

Finally, Behe's argument assumes that natural selection will never be able to account for anything it cannot account for now. This begs the question. In fact, some of the things that Behe and other ID defenders have claimed could not be explained by natural selection have in fact been explained by natural selection.

Dembski

[William Dembski](#) (*Intelligent Design: The Bridge between Science and Theology*, 1998) is a professor at Baylor University. Dembski claims that he can prove that life and the universe could not have happened by chance and by natural processes; therefore, they must be the result of intelligent design by God. He also claims that "the conceptual soundness of a scientific theory cannot be maintained apart from Christ (209)," a claim which belies his metaphysical bias.

According to physicist Vic Stenger in "[The Emperor's New Designer Clothes](#)," Dembski uses math and logic to derive what he calls *the law of conservation of information*. "He argues that the information contained in living structures cannot be generated by any combination of chance and natural processes....Dembski's law of conservation of information is nothing more than "conservation of entropy," a special case of the second law [of thermodynamics] that applies when no dissipative processes such as friction are present." However, the fact is that "entropy is created naturally a thousand times a day by every person on Earth. Each time any friction is generated, information is lost."

pseudoscience

ID isn't a scientific theory and it isn't an alternative to natural selection or any other scientific theory. The universe would appear the same to us whether it was designed by God or not. Empirical theories are about how the world appears to us and have no business positing *why* the world appears this way, or that it is probably designed because of *how unlikely it is* that this or that happened by chance. That is the business of metaphysics. ID is not a scientific theory, but a metaphysical theory. The fact that it has empirical content doesn't make it any more scientific than, say, [Spinoza's](#) metaphysics or so-called [creation science](#).

ID is a pseudoscience because it claims to be scientific but is in fact metaphysical. It is based on several philosophical confusions, not the least of which is the notion that *the empirical is necessarily scientific*. This is false, if by 'empirical' one means *originating in or based on observation or experience*. Empirical theories can be scientific or non-scientific. Freud's

theory of the Oedipus complex is empirical but it is not scientific. Jung's theory of the collective unconscious is empirical but it is not scientific. Biblical creationism is empirical but it is not scientific. Poetry can be empirical but not scientific.

On the other hand, if by 'empirical' one means *capable of being verified or disproved by observation or experiment* then ID is not empirical. Neither the whole of Nature nor an individual eco-system can be proved or disproved by any set of observations to be intelligently or unintelligently designed. A design theory *and* a natural law theory that makes no reference to design *can* account for Nature as a whole and for individual eco-systems.

[Science](#) does have some metaphysical assumptions, not the least of which is that the universe follows laws. But Science leaves open the question of whether those laws were designed. That is a metaphysical question. Believing the universe or some part of it was designed or not does not help understand *how* it works. If I ever answer an empirical question with the answer "because God [or superintelligent aliens, otherwise undetectable] made it that way" then I have left the realm of science and entered the realm of metaphysics. Of course scientists have metaphysical beliefs but those beliefs are irrelevant to strictly scientific explanations. Science is open to both [theists](#) and [atheists](#) alike.

If we grant that the universe is *possibly* or even *probably* the result of intelligent design, what is the next step? For example, assume a particular eco-system is the creation of an intelligent designer. Unless this intelligent designer is one of us, i.e., human, and unless we have some experience with the creations of this and similar designers, how could we proceed to study this system? If all we know is that it is the result of ID, but that *the designer is of a different order of being than we are*, how would we proceed to study this system? Wouldn't we be limited in always responding in the same way to any question we asked about the system's relation to its designer? *It is this way because of ID*. Furthermore, wouldn't we have to assume that since God, the intelligent designer, designed everything, even us, that no matter what happens, it is always a sign of and due to intelligent design. The theory explains everything but illuminates nothing.

The ID proponents are fighting a battle that was lost in the 17th century: the battle for understanding Nature in terms of final causes *and* efficient causes. Prior to the 17th century, there was no essential conflict between a mechanistic view of Nature and a teleological view, between a naturalistic and a supernaturalistic view of Nature. With the notable exception of [Leibniz](#) and his intellectual descendents, just about everyone else gave up the idea of scientific explanations needing to include theological ones. Scientific progress became possible in part because scientists attempted to describe the workings of natural phenomena without reference to their creation, design or ultimate purpose. God may well have created the universe and the laws of nature, but

created Nature is a machine, mechanically changing and comprehensible as such. God became an unnecessary hypothesis.

See related entries on [atheism](#), [the argument from design](#), [creationism](#), [God](#), [Occam's razor](#) and [theism](#).

further reading

[reader comments](#)

- [Intelligent Design: Humans, Cockroaches, and the Laws of Physics](#)
Victor J. Stenger (1997)
- [Intelligent Design: The New Stealth Creationism](#) by Victor J. Stenger (2000) [pdf format]
- [Cosmythology: Was the Universe Designed to Produce Us?](#) By Victor J. Stenger
- [Design Yes, Intelligent No A Critique of Intelligent Design Theory and Neo-Creationism](#) by Massimo Pigliucci
- [The "New" Creationism](#) by Robert Wright (Slate.com)
- ['Intelligent Design' Meets Artificial Intelligence](#) by Taner Edis, Skeptical Inquirer (March/April 2001).
- [Nutty Professors, or Some Addled Academics?](#) Robert A. Baker
- [Baylor demotes director of Polanyi Center](#)
- [Is the Intelligent Design Hypothesis Anti-Evolution?](#) Donavan Hall
- [NATURALISM IS TODAY--BY HISTORY, PHILOSOPHY, AND PURPOSE--AN ESSENTIAL PART OF SCIENCE](#) by Steven D. Schafersman
- [Talk Reason](#) - a collection of articles opposing so-called intelligent design theory

A list of scientific papers which refute Behe can be found in [Publish or Perish - Some Published works on Biochemical Evolution](#).

There are a number of critiques of Behe's claims available on the Internet. Here is a partial list:

- [A Rebuttal of Behe by Clare Stevens](#)
- [Darwin v. intelligent design \(Again\) The latest attack on evolution is cleverly argued, biologically informed-and wrong. H. Allen Orr](#)
- [A Central IL Scientist Responds to the Behe's "Black Box"](#) by Karen Bartelt, organic chemist and an Associate Professor of Chemistry at Eureka College in Eureka, IL.

- [Behe's Empty Box](#)
- [Darwin's Black Box Irreducible Complexity or Irreproducible Irreducibility?](#) by Keith Robison
- [A Biochemist's Response to "The Biochemical Challenge to Evolution"](#) by David Ussery, associate professor at the [Center for Biological Sequence analysis \(CBS\)](#) in the Institute of Biotechnology, Danish Technical University, in Lyngby, Denmark
- [Review of Darwin's Black Box](#) by [Kenneth R. Miller](#), Professor of Biology, Brown University
- [Review of Darwin's Black Box](#) by Peter Atkins, Oxford University
- [Review of Darwin's Black Box](#) by Andrew Pomiankowski, Royal Society research fellow at the department of biology, University College London
- [Review of Darwin's Black Box](#) by Gert Korthof
- [Michael J. Behe - Responses to Critics.](#)

There are several refutations of Dembski's work posted on the Internet.

- [Are the Odds Against the Origin of Life Too Great to Accept?](#) by Richard Carrier
- [The Triumph of Evolution...And the Failure of Creationism](#) by Niles Eldredge
- [Review of: J. P. Moreland \(ed.\) The Creation Hypothesis](#)

Arnhart, Larry. "Evolution and the New Creationism - a Proposal for Compromise," *Skeptic* Vol. 8 No. 4, 2001, pp. 46-52.

[Barlow, Connie. *The Ghosts of Evolution* \(Basic Books, 2001\).](#)

[Dawkins, Richard. *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design* \(W W Norton & Co., 1988\).](#)

[Dennett, Daniel Clement. *Darwin's dangerous idea: evolution and the meanings of life* \(New York : Simon & Schuster, 1995\).](#)

[Gould, Stephen Jay. *Ever Since Darwin* \(New York: W.W. Norton & Company, 1979\).](#)

[Gould, Stephen Jay. "Evolution as Fact and Theory," in *Hen's Teeth and Horse's Toes* \(New York: W.W. Norton & Company, 1983\).](#)

[Pennock, Robert T. *Tower of Babel: The Evidence Against the New*](#)

[Creationism \(Cambridge, MA: the MIT Press, 1999\).](#)

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 [Inset Fuel Stabilizer](#)

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[argument from design](#)

[intelligent design](#)

reader comments:

argument from design & intelligent design

14 Dec 2001

Just one minor quibble:

"On the other hand, if by 'empirical' one means capable of being verified or disproved by observation or experiment then ID is not empirical. Neither the whole of Nature nor an individual eco-system can be proved or disproved by any set of observations to be intelligently or unintelligently designed."

Suppose, for example, we found in some of the junk DNA in a human genome a pattern that decoded to the first 100 significant figures of pi in base 4. Or better yet, a coded message that read, "No shit, I really did create the Universe in seven days, yours truly, Yahweh." That would be some pretty convincing evidence of ID, at least in my mind.

Best regards... Stuart

reply: I'm sure someone working on the [Bible Code](#) will find pi in junk DNA several times over. It may take some work to create the code to find pi, but if it were easy even George Bush could do it. On the other hand, I doubt if Yahweh uses words like *shit*. But, if every sunset spelled out "on your knees and worship me or I will destroy everything on the planet except for the guy that runs Noah's Bagels" in large Gothic letters visible to everyone on earth, then I'd believe in design and I'd be afraid to use any adjectives to describe that design.

14 Sep 1997

How would you explain the global migrations of birds and fish?

Robert

reply: Well, Robert, I suppose your question is intended to imply that if I can't explain to your satisfaction how birds and fish find their ways to their traditional migratory areas that God must be giving them maps. Or perhaps God busies himself by directly intervening and guiding the animals to their breeding grounds. On the other hand, maybe God gave the

animals some intelligence to go along with their brains and senses, so the dumb animals wouldn't get lost. On the other hand, maybe God didn't have anything to do with it. Maybe these animals evolved and their global migrations are part of their evolutionary process. I don't know, but the migratory habits of birds and fish is a bit outside of my field of expertise. However, you might like to look at these sources:

1. Gould, Stephen J. 1996. "Fly (almost) south young bird." *Nature*. 383(Sept. 12):123
2. Kerlinger, Paul. *How birds migrate* (Mechanicsburg, PA : Stackpole Books, 1995).
3. *Orientation in birds* edited by P. Berthold ; with a foreword by Rudiger Wehner. (Basel ; Boston : Birkhauser Verlag, 1991).
4. Alerstam, Thomas. *Bird migration* translated by David A. Christie (Cambridge [England] ; New York : Cambridge University Press, 1990).
5. [*The Sibley Guide to Bird Life and Behavior*](#) by David Allen Sibley

As for the fish, well, Robert, I suggest you go to the library and check out a book on the subject. You are asking the wrong person when you ask me to explain the global migration of fish. But you might try

- [*Fishes : A Field and Laboratory Manual on Their Structure, Identification and Natural History*](#) by Gregor Cailliet, et al
- [*Fishes: An Introduction to Ichthyology*](#) by Peter B. Moyle, Joseph J. Cech
- [*Encyclopedia of Fishes, Second Edition*](#) by John R. Paxton (Editor), et al
- [*The Diversity of Fishes*](#) by Gene S. Helfman, Bruce B. Collette, Douglas E. Facey

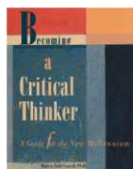


[argument from design](#)

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argument to ignorance (argumentum ad ignorantiam)

The argument to ignorance is a logical fallacy of irrelevance occurring when one claims that something is true only because it hasn't been proved false, or that something is false only because it has not been proved true. A claim's truth or falsity depends upon supporting or refuting evidence to the claim, not the lack of support for a *contrary* or *contradictory* claim. (*Contrary* claims can't both be true but both can be false, unlike *contradictory* claims. "Jones was in Chicago at the time of the robbery" and "Jones was in Miami at the time of the robbery" are *contrary* claims--assuming there is no equivocation with 'Jones' or 'robbery'. "Jones was in Chicago at the time of the robbery" and "Jones was not in Chicago at the time of the robbery" are contradictory. A claim *is* proved true if its contradictory is proved false, and vice-versa.)

The fact that it cannot be proved that the universe *is not* designed by an Intelligent Creator does not prove that it is. Nor does the fact that it cannot be proved that universe *is* designed by an Intelligent Creator prove that it isn't.

The argument to ignorance seems to be more seductive when it can play upon [wishful thinking](#). People who want to believe in immortality, for example, may be more prone to think that the lack of proof to the contrary of their desired belief is somehow relevant to supporting it.

further reading

[Browne, M. Neil & Stuart M. Keeley. *Asking the Right Questions: A Guide to Critical Thinking* \(Prentice Hall, 1997\).](#)

[Carroll, Robert Todd. *Becoming a Critical Thinker - A Guide for the New Millennium* \(Boston: Pearson Custom Publishing, 2000\).](#)

[Damer, T. Edward. *Attacking Faulty Reasoning: A Practical Guide to Fallacy-Free Arguments* 4th edition \(Wadsworth Pub Co, 2001\).](#)

[Kahane, Howard. *Logic and Contemporary Rhetoric: The Use of Reason in Everyday Life*, 8th edition \(Wadsworth, 1997\).](#)

[Moore, Brooke Noel. *Critical Thinking* \(Mayfield Publishing Company, 2000\).](#)



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Last updated 04/06/03



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Bach's flower therapy

"Bach's flower therapy" is a type of homeopathic aromatherapy developed in the 1930s by British physician Edward Bach (1886-1936). Bach claimed to have psychically or intuitively discovered the healing effects of 38 wildflowers. His "discoveries" were arrived at by "inspirations." For example, while on a walk he had an inspiration that dew drops on a plant heated by the sun would absorb healing properties from the plant. He claimed that all he needed to do was hold a flower or taste a petal and he could intuitively grasp its healing powers. From these intuitions he went on to prepare "essences" using pure water and plants.

Bach claimed that these wildflowers have a soul or energy with an affinity to the human soul. The flower's spiritual energy is transferable to water. Devotees drink a homeopathic concoction of flower essence, mineral water and brandy in order to get the flower soul to harmonize their own soul's energy. According to Desde San Felipe y Santiago de Montevideo of Uruguay, flower remedies "do work." Bach thought that illness is the result of "a contradiction between the purposes of the soul and the personality's point of view." This internal war leads to negative moods and energy blocking, which causes a lack of "harmony" which leads to physical diseases. "Each of the 38 flowers of the Bach system is used to balance specific emotional pains or, in advanced stages of the lack of balance, to remit physical symptoms" [personal correspondence]. I have no idea what is meant by saying that this therapy "works," but I do not see how it could be tested since its main claims are metaphysical not empirical.

Dr. Bach seems tame compared to the pioneering work of others who have followed in his petals. In California it has been discovered that the humble Forget-Me-Not is good for "increasing your awareness of karmic relationships beyond the threshold." And Mugwort is good "for awareness of dreams and conscious control of one's psychic life."*

See related entry on [aromatherapy](#).

further reading

[reader comments](#)

- [Mystical Medical Alternativism](#)
- [Bach Flower Therapy](#) in *The Expanded Dictionary of Metaphysical*

Healthcare By Jack Raso, M.S., R.D.

- [The Dr. Edward Bach Foundation](#)

- [SpiritWeb's Bacchanalia](#)

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reader comments:

aromatherapy

11 Nov 2002

Hmmmm. It's funny that whenever you need an aromatherapist, there never is one, especially at the scene of a serious road accident. It's very rare in such an event, with blood, snot and severed limbs everywhere, that someone doesn't come charging through offering their services announcing, "Let me through, I'm an aromatherapist."

Cheers, Michael

20 Jul 2000

*I was slightly insulted by your statement that believers or practitioners of aromatherapy would not want to read your article. Id est, people who are involved in aromatherapy are a bunch of unscientific hippy dolts. Or perhaps I read too much into your innocent cynicism. Or skepticism rather. It **is** skepticism, and **not** cynicism you are basing your dictionary on, right? Regardless, I **did** read your article; it's actually one of the first pro/con articles I've read on aromatherapy. Up until now I have only read information on what essential oils are used for what malady or to which desired effect, and the variety of ways in which essential oils can be administered. I am more interested in the skepticism than the testimonials, as is obvious from my choice of reading. Your article has inspired me to attempt to acquire an allocation of funds to research aromatherapy scientifically (id est experiments with control groups, etc). I have my doubts as to how effective a "blind" study would be <GRIN>. Another statement you made that troubled me was in regards to claims made that pharmaceutical companies and the like were the ones with the money and it was not in their best interests to promote aromatherapy (and I would add other alternative healing methods to this as well). You countered this statement by denouncing it as "unscientific whining". I would like to note that slurs are no more scientific than testimonials or conspiracy theories. I was still left with questions: Is it or isn't in their best interests to study aromatherapy? If it is, then why don't they do the research? If it's a fraud, they could disprove it. If it has value, then is it best for them to simply ignore it and hope it goes away? Why couldn't they sell essential oils? Is there a smaller profit there than in pharmaceuticals? Perhaps pharmaceuticals are cheaper to make. There are many questions I would like answered that require scientific research. But aromatherapy works for a great many people, placebo or no. It is amusing that*

you, a "man of the mind" as it were, might never know the full power of the mind. Life is full of paradox. P.S. sorry for being so long winded...

Bear Palomo-

reply: According to [US Business Reporter](#)

Many consumers have chosen alternative forms of medicines as health remedies. These alternative medicines collectively known as herbal medicine supposedly offer faster healing without the after effects of traditional medicines. Some large pharmaceutical manufacturers have capitalized on this trend by producing their own herbal medicinal solutions. Herbal medicines have the added advantage of less government regulation than traditional medicines.

In short, the major pharmaceutical firms are businesses and will go where they think there is good money to be made. Why bother doing research on ginkgo biloba, shark cartilage, donkey hair, rhino horn, etc., when the people who buy it don't care if there is any scientific proof it works?

08 Nov 1999

Just to let whomever wrote that know that tea tree oil is an antiseptic containing the similar constituents as Eucalyptus oil. This is what caused the "healing" to occur. Although I do not think breathing oils in can be the whole cure to any disease studies do indicate that changes in bio chemistry of the brain do occur with odours and this can have an effect on the mood and emotions. Eucalyptus oil, containing Eucalyptol; basically terpene and cymene is a powerful microbacterialcide. I do not know why this account would be mentioned in an aroma therapy book because it is obvious that the application was topical to the wound and the action was a direct effect of the oil on the site itself, not the breathing in of the volatile oil.

Navotny

PS I do not practice aroma therapy but do not condone it either for further tests on the power of scent and the effect on brain chemistry needs to be done. Most viable are probable uses for the regulation of serotonin as we know smell causes involuntary reaction like hunger and fear to occur, who is to say it does not effect other emotions as well.

08 Nov 1999

I use tea tree oil on occasions for treating minor cuts and scratches, and I believe it is effective. It definitely relieves inflammation and soreness, and

seems to accelerate healing. Particularly for cold-sores around the mouth, which I am prone to, it is preferable to other over-the-counter preparations I have tried.

I am retired after a career in biomedical research and technology transfer, and am decidedly of the "Doubting Thomas" school regarding "alternative medicine" therapies. For more serious abrasions, I am a firm believer in triple antibiotic ointment. But I do think tea tree oil has some beneficial effect.

I remember reading somewhere that it has identified ingredients which are known to have weak antibiotic activity.

I find your SkepDic page extremely interesting and useful. Keep up the good work.

Larry Bonar

16 Aug 1999

Just reading the "what's new" entry and noticed this statement:

It is interesting that you mention Gattefosse, but you cease to mention his experience with lavender oil when you talk about that oil later on. Gattefosse was badly burned in a laboratory explosion at one point and stuck his burned arm into the nearest vat available to cool the burn. This happened to be a vat of lavender oil and his burns healed without scarring as well as much more quickly than normal.

As I recall, the modern use of ice and other cooling substances happened after anecdotal evidence of a dairy farmer plunging his burned arm into a container of chilled milk. The physical cooling of the burn was the mechanism, and I imagine lavender oil is a somewhat less-effective heat transfer substance than milk, but still adequate to forestall severe tissue damage.

Later on, one of your correspondents, David Ehrensperger, talks of Otto of Rose. Presumably he means attar of rose. These guys can't even get their "facts" straight.

John Renish

24 Apr 1998

I read a few of the entries in your Skeptic's Dictionary and, since I have worked with essential oils for the last 7 years or so, I decided to read your entry on aromatherapy. While I cannot offer a controlled study, I can offer my own experience. Below, I will list some of your claims and my responses to those

claims:

1. "Furthermore, only in some cases of aromatherapy are vapors used. In most cases, the oil is rubbed onto the skin or ingested in a tea or other liquid"

I have not come across these claims at all. Having worked with an aromatherapist and read various materials in the field, I have found the majority of practitioners do recommend inhalation and discourage ingestion (at least in the U.S).

reply: You may be right, but it all depends on what counts as aromatherapy. Some people count cooking with herbs as aromatherapy, in which case, ingestion is typical. What I was trying to emphasize is that though it is called *aroma* therapy, rubbing on oils or adding them to the bath, etc., are a major part of the practice.

2. "Aromatherapy is a term coined by French chemist René Maurice Gattefossé in the 1920's to describe the practice of using essential oils taken from plants, flowers, roots, seeds, etc., in healing."

It is interesting that you mention Gattefossé, but you cease to mention his experience with lavender oil when you talk about that oil later on. Gattefossé was badly burned in a laboratory explosion at one point and stuck his burned arm into the nearest vat available to cool the burn. This happened to be a vat of lavender oil and his burns healed without scarring as well as much more quickly than normal.

While I have not gone through anything quite so dramatic, I have burned myself many times in my life, both before and after I discovered lavender oil. I am very much attuned to the way my body heals or does not heal (most people are) and I have found, for minor burns, that lavender oil does wonders. My burned skin has healed at greatly accelerated rates due to lavender oil--much less pain and no scarring. Have you tried this at all? If not, I highly suggest it.

reply: I never denied that rubbing on various natural (and artificial) ointments can assist the healing process. Aromatherapists, however, are prone to such anecdotes in lieu of scientific studies. Testimonials are not scientific evidence. If aromatherapy wants to become scientific, aromatherapists must become scientists.

3. "This kind of post hoc reasoning abounds in the literature of alternative health care. What would be more convincing would be some control studies."

You made this comment in reference to the use of tea tree on an individual's

septic finger. Now, I have not had the drama of a septic finger, but I have had several recalcitrant minor infections that have cleared up under application of tea tree. This is direct, personal experience. What do you suggest for a controlled study?

reply: It's not my job to design or do controlled studies for aromatherapeutic claims. It's your job. My job is to evaluate the studies, if and when they are done.

4. "Such testimonials are never met with skepticism or even curiosity as to what evidence there is for them. They are just passed on as if they were articles of faith."

The above comment was made in reference to rose as a cure for frigidity. How much do you use your sense of smell? When working around essential oils, I found that one's smell is keener the more it is exercised. Thus, one's experience with scent is almost entirely subjective.

For example, Otto of Rose is pure and very expensive. To those who have a keen sense of smell, there is nothing else like it in the world and it is worth every penny. The scent is a euphoric experience to be cherished. The quote you provided was this:

"Marguerite Maury prescribed rose for frigidity, ascribing aphrodisiac properties to it. She also considered rose a great tonic for women who were suffering from depression.(Daniele Ryman, Aromatherapy, p, 205)"

This makes perfect sense to me since I have been able to experience rose the way to which it is referred above. I have offered this same scent to others only to have them say (to my utter disbelief), "Gee, that smells nice." To me, it is hardly an article of faith, but simply something that is.

Will you grant that some individuals have keener senses of smell than others? If so, call this "scent intelligence" for the sake of argument. It would seem that some individuals have greater "scent intelligence" (or keener senses of smell) than others and, given that, it would follow that those with keener senses of smell would be more able to reap the benefits of aromatherapy--a practice based on scent in many cases (i.e., especially rose). Does this make sense to you? It has been the case in my experience. You are looking for quantified data--how does one quantify this?

reply: Of course, people have different "scent intelligence," as you call it. What needs to be measured is not keenness of sense, but effect on the health of the body. We're not talking perfume here. Or, are we? If so, the whole field is subjective and about all we can hope to measure is the subjective response (attraction, repulsion) to the perfumes.

5. "Of course, one should not forget that aromatherapy is also used to enhance beauty, but I'll leave that topic to others who might wish to examine the role of the placebo effect in New Age healthcare and cosmetology."

What can I say to this one? My experience is directly opposed to what you are saying above. I have seen the effects of essential oils on skin, my own and others', and those effects were hardly what one would call a placebo effect. Your attitude of disbelief might very well be blocking any fair sense of inquiry.

reply: It is precisely the skeptical attitude that is required to do a proper scientific study of these claims.

6. For further reading, you suggest 3 books. 1 is by Stephen Barrett, MD, the 2nd is by Val Lariviere, and the 3rd is about the life of Edward Bach. I have not read any of these, but I would guess that Dr. Barrett already had his mind made up before beginning his exploration of aromatherapy. I can't comment on the book by Val Lariviere and the Bach remedies to which you refer are viewed with skepticism by the aromatherapists I know.

To offer a more balanced selection, you might refer to works by Robert Tisserand, Jeanne Rose, and Christine Wildwood (to name a few). I would be happy to send you specific titles if you like.

Also, try some of this yourself. This does not mean go try something once (especially in the area of scent) and, when it doesn't work given an underdeveloped sense of smell, proclaim loudly to the academic world (and anyone else who will listen) that aromatherapy is all nonsense.

reply: I don't say aromatherapy is all nonsense. I say that it is not clearly defined and that it is not a science. I like nice aromas as much as the next person, and am repulsed by certain odors, including tobacco smoke and certain perfumes that irritate the membranes of my nostrils and are very reminiscent of certain insecticides.

With things like lavender and tea tree (and other things applied the skin), sense of smell will not matter. With Otto of Rose and other inhaled scents, however, you will need to do some work--simply put, it will take time.

To end, I would like to say that I do not find all claims of all aromatherapists to have merit. Some of the claims conflict. Some claims, I have not been able to verify personally. Still other claims have not worked in my experience. For other claims pertaining to essential oils, the jury is still out for me. I approach each claim with a healthy dose of skepticism, waiting for the essential oil to prove its claim to me. More often than not, the oils have proven themselves to me via experience (not through rumor, 2nd hand account, etc.). I suggest you

try the same approach.

Respectfully,
David Ehrensperger

reply: Unfortunately, I don't have enough money to try the various oils available at my local Co-Op. In any case, this trial and error method of testing hypotheses is very primitive and is not very effective at ruling out [confirmation bias](#) and [subjective verification](#), which is why we would like to see a clear definition given of 'aromatherapy' and some [controlled studies](#) to test its various empirical claims.

06 May 1998

Your Skeptic's Dictionary was brought to my attention by a friend and client of mine who was angered to see that you had harsh words about aromatherapy. I have read your article and find that although your sources are legitimate, I don't think you have taken much time to thoroughly investigate the subject. I have been a practicing aromatherapist for 13 years. I also work with herbs and call myself an herbalist.

reply: I gave it as much time as I thought it deserved.

I'd like to raise several points here. 1) There ARE studies done on essential oils. Read [Aromatherapy: Scent and Psyche](#) by Peter and Kate Damian and you'll find plenty of them. 2) OK, there are not MANY studies done on essential oils, but WHY? Because the AMA and the pharmaceutical companies have all the money to fund such studies, and it is not in their interest to do so.

reply: Really, where is your proof for this often repeated charge by the pseudoscientific whiners of the world?

3) It is becoming more and more common for reputable suppliers of essential oils to have all their oils tested using gas chromatography. Generally, NOBODY who has experience with essential oils trusts their nose entirely to figure the relative purity of an oil. They generally have a GC done. 4) European aromatherapists suggest internal use of essential oils. American aromatherapists generally do not. ALL cases of severe toxicity involving essential oils result from internal use. I must agree with your assessment of the Bach flower remedies though. I really think they're bunk personally. I also invite you to visit my Web page: www.kamala.com

I don't give a lot of the scientific information you're looking for on it (I find most of my clients are confused and mystified by it, so I save it for those who ask), but you might take a look at some of the other books I recommend.

Cheers!

Dana M. Gass owner, Kamala Perfumes, Inc.

reply: We wouldn't want to confuse or mystify anyone with scientific information, now. Maybe you could get a job with one of our (Sacramento City College) nursing programs. The head of one of the programs (Rae Woods) said much the same thing to me about twenty years ago when I offered to develop a medical ethics course for nursing students. By the way, this person still heads the program and teaches [therapeutic touch](#) to her students. It wouldn't surprise me if she teaches aromatherapy as well.

July 05, 1998

I read with interest you comments on aromatherapy especially those that apply to me. I just want to make a few comments. The article you quoted from was a short introduction to aromatherapy in a magazine provided free of charge to health food stores. The article was aimed towards people who are interested in finding out a little bit more about a term they have only heard about. It wasn't ever intended to be anything more. It was not intended as a scientific proof for a sophisticated readership. You might have been better off critiquing works by Valerie Ann Worwood or Jean Valnet as they are leaders in the field and have a strong research and science base.

reply: You are probably right.

Also I have never called myself (anointed or otherwise) an aromatherapist. I however do use aromatherapy in my practice with quite beneficial results. If it didn't work, I wouldn't use it.

reply: As I understand it, your business is called Gateway Aromatherapy and you practice a "healing art" which uses essential oils, among other things. And you say you use aromatherapy. Why would you object to being called an aromatherapist?

I would also recommend that you place the Bach Flower critique separately since Bach flower remedies are not nor have they ever been part of Aromatherapy. They are flower essence therapy, taken internally, created differently for rather different purposes.

reply: This is a good suggestion and I plan to move the Bach Flower stuff to its own entry.

I think skepticism is healthy but I think you need to have a rather large knowledge base for a critique. And that knowledge base should probably involve the best that a field has to offer rather than a one page, extremely

general article on a topic. But hey, thanks for thinking of me.

Val Lariviere

reply: As you know, I selected one quote from your essay and noted that it was typical of the kind of non-testable claims made by aromatherapists. What is "balance," "imbalance," "the centre," etc.? These are not empirical terms referring to observable, measurable qualities. They are subjective evaluations. [Subjective validation](#) is typical of most pseudosciences.



[aromatherapy](#)

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mind

The mind is thought to be the seat of perception, self-consciousness, thinking, believing, remembering, hoping, desiring, willing, judging, analyzing, evaluating, reasoning, etc.

[Dualists](#) consider the mind to be an immaterial substance, capable of existence as a conscious, perceiving entity independent of any physical body. Dualism is popular with those who believe in life after death. The brain may decay, disintegrate, and be forever annihilated, but the mind (or [soul](#)) does not depend on the body for its existence and so may continue to flourish in another world. This belief in the mind as a substance which exists independently of the brain, however implausible, seems to be required for most religious doctrines, as well as for many New Age notions and therapies. Whereas dualist philosophers have long struggled with what is known as [the mind-body problem](#), New Age gurus are calling for mind-body harmony in [medicine](#), [therapy](#) and [science](#). In short, philosophers have realized that there is a problem in explaining how two fundamentally different kinds of reality can affect one another, while New Age pundits think the problem has been caused by treating the two--mind and body--as if they do not interact.

[Metaphysical materialists](#), on the other hand, consider the mind to be either the brain itself or an *emergent reality*, i.e., an entity separate from but brought into being by the workings of the brain. The latter doctrine is known as *epiphenomenalism*. For the materialist, 'mind' is a catchall term for a number of processes or activities which can be reduced to cerebral, neurological and physiological processes.

[Behaviorists](#) consider 'mind' to be a catchall term for a set of behaviors.

There is probably no more fascinating topic in philosophy or neurology than *mind* or *consciousness*. Yet, despite the fact that the human mind has made it possible to gain all the understanding of the world and ourselves which we now possess, it has done precious little to help us understand the mind itself. For example, [memory](#) is something we all have to some degree or another. Yet, we do not fully understand the nature of memory, and several models of memory are equally plausible.

Models of mind or consciousness continue to occupy the brains of some of our best philosophers and scientists. Yet, despite the fact that the key to understanding the human mind is likely to be found in the study of the functioning human brain, many [philosophers](#) and [psychologists](#) continue to be guided by the belief that the mind can be adequately understood

independently of the brain.

Philosophers of mind have never considered the fact that rarely does anyone have direct perception of either one's own or another person's brain to be a major philosophical problem. Yet, one of the major problems in philosophy is the 'other minds' problem. One can know one's own mind directly, but how do I know that other minds exist? This problem is known as the problem of [solipsism](#), but it might well be called *the mind leading the mind problem*.

See **related entries** on [astral projection](#), [dualism](#), [free will](#), [materialism](#), [memory](#), [souls](#), [Charles Tart](#), and [p-zombies](#).

further reading

- [The Whole Brain Atlas](#)
- [Anatomy of the Brain](#) from About.com
- [The Paleo Ring](#) - Websites on Paleontology, Paleoanthropology, Prehistoric Archaeology, Evolution of Behavior, and Evolutionary Biology
- [Mind and Body: René Descartes to William James](#) by Robert Wozniak of Bryn Mawr College
- [Street Map of the Mind](#)
- [Neurosciences on the Internet](#)
- [Philosophy of Mind Dictionary](#)

[Churchland, Patricia Smith. *Neurophilosophy - Toward a Unified Science of the Mind-Brain* \(Cambridge, Mass.: MIT Press, 1986\).](#)

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[wanting \(Cambridge, Mass. : MIT Press, 1984\).](#)

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[Sacks, Oliver W. *Seeing voices : a journey into the world of the deaf* \(Berkeley: University of California Press, 1989\).](#)

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reader comments:

astral projection

17 Jan 1997

I am impressed by the expanse of your work. For what it's worth, you've done a lot of work. May I make just a few notes? Astral projection is not constrained by time. It is quite possible, strictly speaking, for a projector to see land formations on, say, Mars, that do not appear today. The projector has merely gone behind--or ahead--of the present. Do your homework!

reply: Oh, my, I'm sorry. I really should do more study on this subject. Of course the projector may, strictly speaking, have gone forward or backward or even taken the sidereal entrance into unknown dimensions of time. Time is not only precious, but relative. A projector is never really late for work; they are just early for a job in the next lifetime.

AP is not like dreaming. Even with a veteran, it is likely to be a relatively brief experience. There are many factors that will pull the projector's consciousness back to his/her body. The oversoul (if you are willing to believe in such nonsense) might detect danger from a person in the physical or spiritual world. The projector might accidentally verbalize a thought. The act of AP can be very stressful and is not a natural environment for us mortals, so we can't remain but for a few minutes.

reply: But what's a few minutes to one who can go backwards or forwards in time? Nothing, since each direction cancels the other out.

The silver cord is not indefinitely extendable. It will be, however, if you are convinced as such. It all depends on your frame of mind and expectations.

reply: I had a hunch the length of the astral cord depended on the breadth of the imagination!

This same cord (again, bear with me) is that which pulls us back into our rightful bodies. And I doubt you'd want to enter into a body you wouldn't recognize.

reply: I don't know. There are a few bodies I wouldn't mind possessing, no pun intended. Anyway, you must admit that it is amazing that more cords don't tangled up. Most people can't even wind up the yard hose or an extension cord without getting it tangled. Imagine millions of these cords from many different time zones, past, present and future. I envision thousands of fly fishers all casting towards each other and the

ensuing mess would make me want to cut the cord.

Lastly, unless your dead, you don't remain and get lost in the non-spatial world. Period. There are beings that will guide the lost soul back to its rightful location.

reply: These special beings must be friends of yours. If you ever return to this planet, maybe you could introduce us to them.

That said, feel free to think of all of these facts as conveniences to fill potholes in the AP theory, if you have not done so already. The truth is, Mr. Carroll, the higher dimension is far more complex than you or I could encompass.

reply: All I know about the higher dimension is that it is higher. I think somebody else may be high, too. For the time being I prefer to stay outside the compass of the high and mighty.

When your time comes to retire into that long sleep (and may it not come for a while) you will see for yourself, and all of my treatise will be irrelevant. But not inaccessible. You see, all objects in this world have a non-spatial counterpart. They become more solid to the projector's eyes the farther one goes back along the time line. For example, the Pyramids of Giza will be a lot easier for the projector to see than last week's issue of Time. But of course, you already knew that, having thoroughly explored the data available.

superfli

reply: Now that I have a guide for the perplexed, I feel I do know the higher truth. I'm beginning to see the eye of the pyramid. It's as clear as Newsweek, I mean Time. It's green. It's freemasonry embedded in the dollar bill! Free at last, thank Giza, free at last!



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astrotherapy

The value of astrology. . .is not its power to predict what the gods have in store for humans, but its ability to reveal the god-like powers that reside in the depths of every human being.

--[Glen Perry, Ph.D.](#)

Questions of truth or falsity belong to the realm of the rational and are irrelevant to the value of the imaginal. . . .To insist that Moon/Saturn contacts must needs be depressive or Mars/Pluto explosive (in other words, actually true) is to kill the imaginal and rob it of its power to be therapeutic. . . .Astrology viewed as an imaginal discipline conveniently avoids all questions of whether it is true or not, diffusing much of its critics [sic] furor.

--[Brad Kochunas](#)

I do not know why I believe what I believe, as it comes from the heart and not the head.

--[Brad Kochunas](#)

Astrology is part of our past, but astrologers have given no plausible reason why it should have a role in our future.

--[I. W. Kelly](#)

Astrotherapy uses [astrology](#) as a guide to the transformation of personality, to self-actualization and self-transcendence. Astrology is studied for its power to aid in psychological healing and growth. As far as I know, there are no licenced "astrotherapists." The term is used to refer to counselors and therapists of all sorts who use astrology in their counseling and therapy.

According to defenders of astrotherapy, most critics of astrology misunderstand how human destiny is actually linked to the heavens. Frederick G. Levine, author of *The Psychic Sourcebook: How to Choose and Use a Psychic* (New York: Warner Books, 1988), claims that modern astrologers are more [holistic](#) than their ancient counterparts. The contemporary astrologer doesn't believe in anything so crude as direct causal connection between the heavenly bodies and a person's destiny. He or she believes in the interrelatedness of all things.

[T]here are larger patterns of energy that govern all interactions in the universe and...these patterns or cycles are reflected in the movements of stars and planets in the

same way they are reflected in the movements of people and cultures. Thus it is not that planetary motions cause events on earth, but simply that those motions are indicators of universal patterns.

To back up his claim, Levine cites Linda Hill, whose credentials he establishes by noting that she has been "a New York astrological consultant of 14 years' [sic] experience." Says Ms. Hill, "I don't think anyone knows exactly why it works; it just works. Carl Jung used the term synchronicity. It's simply a synchronization....We are somehow synchronized to the celestial patterns that were present at our birth."

In short, astrotherapy uses astrology as a kind of projective personality test, useful for unleashing one's hidden creative powers, for delving into the [subconscious mind](#) to discover hidden beliefs, drives, truths, and perhaps even one's [cosmic synchronicity](#)!

Dane Rudhyar is seen as the father of astrotherapy. In the 1930s he applied Jungian psychological concepts to astrology. He liked Jung's notion that the psyche seeks psychic wholeness or "individuation," a process Rudyhar believed is evident in the horoscope.

Rudyhar's work is carried on today by Glen Perry, who boasts a Ph.D. in clinical psychology from the [Saybrook Institute](#) in San Francisco, a regionally accredited (WASC) graduate school "dedicated to fostering the full expression of the human spirit and humanistic values in society." In astrotherapy, says Dr. Perry, "astrology is used to foster empathy for the client's internal world and existing symptoms, and promote positive personality growth and fulfillment." He thinks astrology is both a theory of personality and a diagnostic tool, yet he provides neither arguments nor evidence to support this notion. Here is an example of how astrotherapy uses astrology:

...Saturn opposed Venus in the natal chart indicates not simply "misfortune in love," but the potential to love deeply, enduringly, and responsibly along with the patience and determination to overcome obstacles. While realization of this potential may require a certain amount of hardship and suffering, to predict only hardship and suffering with no understanding of the potential gains involved is shortsighted at best and damaging at worst.

How Perry knows this is not made clear. Other claims, equally profound, do not require argument or evidence because they are vacuous: "the horoscope symbolizes the kind of adult that the individual may become." Still other claims are nearly unintelligible: "What the individual experiences as a problematic situation or relationship can be seen in the chart as an aspect of

his or her own psyche. In this way, the horoscope indicates what functions have been denied and projected, and through what circumstances (houses) they will likely be encountered." "Simply put," says Perry, "the goal is to help the client realize the potentials that are symbolized by the horoscope." What systematic analysis and methodological tools he used to arrive at this notion are not mentioned, much less how one could go about verifying the specific symbolizations of any given horoscope. He does, however, seem to rely heavily upon questionable psychological concepts promoted by Jung and Freud.

Another astrotherapist, [Brad Kochunas](#), makes it clear that one of the chief virtues of applying astrology to the inner life rather than to outward patterns of behavior, is that it takes astrology out of the realm of the scientific, where it has not fared too well when it has been thoroughly examined. Kochunas calls this concern with the psyche "the imaginal perspective" and says it

is not concerned with whether something is true or not but rather with its usefulness for the task at hand. Questions of truth or falsity belong to the realm of the rational and are irrelevant to the value of the imaginal. It is the functional validity and not the factual validity which is primary for the imaginal perspective. Does something work for a person? Is it useful in the sense of providing depth, meaning, value, or purpose to an individual or community? If so, then there is little call for its cultural degradation, it has power.

Here he proudly cites Barbara Sproul's *Primal Myths* (San Francisco: Harper & Row, 1979). At least Kochunas, unlike Perry, firmly locates astrotherapy in mythology and proudly proclaims it to be outside of the realm of science. His message seems to be very simple and straightforward: If you can find satisfied customers, you have a valid myth.

[Max Heindel](#), on the other hand, extends astrotherapy to all forms of healing and calls it a science, declaring it to have two basic laws: "the Law of Comptability [sic]" and "the law of Systemic Receptibility." A brief quotation from Heindel's work will demonstrate to the astute reader why I will not bother to review these "laws."

At the time of conception the Moon was in the degree which ascends at birth (or its opposite); the vital body was then placed in the mother's womb as a matrix into which the chemical elements forming our dense body are built. The vital body emits a sound similar to the buzz of a bumblebee. During life these etheric sound waves attract and place the chemical elements of our food so that they are formed into organs and tissues. So long as the etheric sound waves in our vital body are in harmony with the keynote of the

archetype, the chemical elements wherewith we nourish our dense body are properly disposed of and assimilated, and health prevails no matter whether we are stout or thin, of rosy complexion or sallow, or whatever the outward appearance. But the moment the sound waves in the vital body vary from the archetypal key-note, this dissonance places the chemical elements of our food in a manner incongruous with the lines of force in the archetype. . . .

The general rule is: From the time of the New Moon to that of the Full Moon stimulants produce the greatest effect and sedatives are weakest. Decrease the dose of stimulants and increase that of sedatives. The exception is: When the Moon increasing approaches a conjunction to Saturn give larger doses of stimulants and smaller doses of sedatives.

We are not told from what ancient spirit these theories were channeled and we are left to guess at the origin of such thoughts. One will search in vain for anything resembling ordinary science in Heindel's writings. One will find, however, a belief in [the music of the spheres](#).

What is one to make of the new astrology which seems to place itself outside of the realm of empirical testing and outside of a concern for empirical truth or falsity? This is seen as progress by the astropsychologists, but for those of us who prefer our delusions to be rooted in terra firma, astrotherapy is just one more in a long line of ["crazy" therapies](#).

See related entries on [astrology](#), the [enneagram](#), and [New Age Psychotherapies](#).

further reading

- [A Transdisciplinary Approach to Science and Astrology](#) by Alain Nègre, professor of Electronics.
- [Occult Principles of Health and Healing](#) ch 11, "Astrology as an Aid to Healing," by Max Heindel (who thinks astrotherapy can heal the body)

Dean, Geoffrey and Arthur Mather and Ivan W. Kelly, "Astrology," in [The Encyclopedia of the Paranormal](#), ed. G. Stein (Amherst, N.Y.: Prometheus Books, 1996).

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the "Mars Effect"

The "Mars Effect" is the name given to Michel Gauquelin's "astrobiological" claim that when Mars is in certain sectors of the sky great athletes are born in numbers indicative of a non-chance correlation. If this were true, [astrologers](#) believe that it would provide support for their theories that the things in the sky are actively influencing who and what we become. However, such correlations are notoriously slippery. They are ambiguous (who counts as a "great" athlete?), and significant correlations between variables that are not significantly related are expected to occur occasionally.

In any case, what Gauquelin claims about Mars and athletes isn't true, according to a study by seven French scientists. They took a sample of 1,066 French athletes and compared them to 85,280 others for birth times, dates and location of Mars at birth. The study didn't support the "Mars Effect."

Gauquelin preferred to call his work in this area "astrobiology" rather than astrology. He also claimed to find a significant correlation between Jupiter and military prowess, as well as between Venus and artists.

See **related entries** on [astrology](#), [the clustering illusion](#), [confirmation bias](#), [the Forer effect](#), [law of really large numbers](#), [occult statistics](#), [post hoc fallacy](#), and [the regressive fallacy](#).

further reading

- ["Coincidences: Remarkable or Random?"](#) by Bruce Martin
- [The Mars effect in retrospect](#) by J. W. Nienhuys
- [A Brief Chronology of the "Mars Effect" Controversy](#) by Kenneth Irving
- [The True Disbelievers](#) (Read about the exciting history of this subject, complete with charges of disingenuous skepticism by Marcello Truzzi and [Jim Lippard](#) - a real potboiler!)
- [Number Watch](#) - **All about the scares, scams, junk, panics, and flummery cooked up by the media, politicians, bureaucrats, so-called scientists and others who try to confuse you with wrong numbers.**

[Benski, Claude, et al., *The "Mars Effect"* \(Amherst, NY: Prometheus Books, 1996\).](#)

[Dean, Geoffrey, Arthur Mather and Ivan W. Kelly, "Astrology," in *The Encyclopedia of the Paranormal*, ed. G. Stein \(Amherst, N.Y.: Prometheus Books, 1996\).](#)

Ruscio, John. "The Perils of Post-Hockery," in the *Skeptical Inquirer*, November/December, 1998.

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law of truly large numbers (coincidences)

"That a particular specified event or coincidence will occur is very unlikely. That some astonishing unspecified events will occur is certain. That is why remarkable coincidences are noted in hindsight, not predicted with foresight."--

David G. Myers

The law of truly large numbers says that with a large enough sample many odd coincidences are likely to happen.

For example, you might be in awe of the person who won the lottery twice, thinking that the odds of anyone winning twice are astronomical. The *New York Times* ran a story about a woman who won the New Jersey lottery twice, calling her chances "1 in 17 trillion." However, statisticians Stephen Samuels and George McCabe of Purdue University calculated the odds of someone winning the lottery twice to be something like 1 in 30 for a four month period and better than even odds over a seven year period. Why? Because players don't buy one ticket for each of two lotteries, they buy multiple tickets every week (Diaconis and Mosteller).

Some people find it surprising that there are more than 16 million others on the planet who share their birthday. At a typical football game with 50,000 fans, most fans are likely to share their birthday with about 135 others in attendance. (The notable exception will be those born on February 29. There will only be about 34 fans born on that day.)

You may find it even more astounding that "In a random selection of twenty-three persons there is a 50 percent chance that at least two of them celebrate the same birthdate" ([Martin](#)).

On the other hand, you might say that the odds of something happening are a million to one. Such odds might strike you as being so large as to rule out chance or coincidence. However, with over 6 billion people on earth, a million to one shot will occur frequently. Say the odds are a million to one that when a person has a dream of an airplane crash, there is an airplane crash the next day. With 6 billion people having an average of 250 dream themes each per night (Hines, 50), there should be about 1.5 million people a day who have dreams that seem [clairvoyant](#). The number is actually likely to be larger, since we tend to dream about things that legitimately concern or worry us, and the data of dreams is usually vague or ambiguous, allowing a wide range of events to count as fulfilling our dreams.

Finally, clusters of coincidences can seem designed or the result of a preordained pattern to someone who is very [selective](#) in his thinking, such as [Uri Geller](#). After the anti-American terrorist attacks on September 11, 2001, Geller posted his thoughts on the number 11. He asked everyone to pray for eleven seconds for those in need. Why? He was convinced that there was a cryptic, [numerological](#) message in the events that occurred that day. In fact, he admits that he has had a long-term relationship with [the number 11](#). He thinks that 11 "represents a positive connection and a gateway to the mysteries of the universe and beyond." But here is what he had to say about the terrorist attack and how 11 relates to this day of infamy:

Geller's Mysterious Number 11

<p>The date of the attack: $9/11 - 9 + 1 + 1 = 11$</p> <p>*September 11th is the 254th day of the year: $2+5+4 = 11$</p> <p>*After September 11th there are 111 days left to the end of the year.</p> <p>*119 is the area code to Iraq/Iran. $1 + 1 + 9 = 11$ (reverse the numbers and you have the date) [not true: Iran's country code is 98 ($9+8=17$), Iraq's is 964 ($9+6+4=19$)]</p> <p>*Twin Towers - standing side by side, looks like the number 11</p> <p>*The first plane to hit the towers was Flight 11 by *American Airlines or AA - A=1st letter in alphabet so we have again 11:11</p> <p>*State of New York - The 11th State added to the Union</p> <p>*New York City - 11 Letters</p> <p>*The USS Enterprise is in the gulf during the attack; its ship number is 65N $6+5=11$</p>	<p>*Afghanistan - 11 Letters</p> <p>*The Pentagon - 11 Letters</p> <p>*Ramzi Yousef - 11 Letters (convicted or orchestrating the attack on the WTC in 1993)</p> <p>*Flight 11 - 92 on board - $9 + 2 = 11$</p> <p>*Flight 77 - 65 on board - $6 + 5 = 11$</p> <p>*The # of story is 110 (2x) 110 - 110 Remember that the zero "0" is not a number, so we have 11:11</p> <p>*The house where they believed to have lived had # 10001 again don't count the zero....</p> <p>Names that have eleven letters *Air Force One, *George W. Bush, *Bill Clinton, *Saudi Arabia, *ww terrorism, *Colin Powell U.S. Secretary of State</p> <p>*Remembrance day is November 11....</p> <p>*November is also the 11th month</p> <p>*Mohamed Atta, the pilot that crashed into the World Trade Centre.</p> <p>*Skyscrapers, American Airlines AA = 11</p>
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Geller also claimed that "there will be more information coming in" and urged readers to e-mail him with more findings of this kind. Geller also wrote: "I

would encourage everyone to send out this message to all your family, friends or business acquaintances and try to put this in the right perspective."

Let me try to put this in the right perspective.

Accumulating more findings like these coincidences between the number 11 and other things should be easy, since there are countless items that can be made to relate in some fashion to the number 11 (or 12, 13, or just about any other number *or word*). E.g. the country code for Pakistan is 92 ($9+2=11$), a Boeing 757 holds about 11,000 gallons of fuel and the wingspan is 155 feet ($1+5+5=11$), [Nostradamus](#) and *Billy Graham* have 11 letters, any word with 8 letters just put 'the' in front of it; any word with 9 letters, just put 'ww' or any two-letter word in front of it, any word with 10 letters, just put 'a' in front of it or add an s to the end of it, etc. It is especially easy to do this since there is no specific guide before we begin our hunt for amazing facts as to what will and what won't count as being relevant. We have a nearly boundless array of items that could count as hits. Unfortunately for Geller and others who are impressed by these hits, there is also an even larger array of items that could count as misses. Geller doesn't see them because he isn't looking for them.

If we start hunting for items that seem relevant but don't fit the pattern, we will soon see that there is nothing special about Geller's list or the number 11. Only by focusing on anything that we can fit to our belief and ignoring everything that doesn't fit ([confirmation bias](#)) can we make these coincidences seem meaningful.

Carroll's List of Meaningless Coincidences

- the planes hit a little before and a little after 9 am
- there were 4 flights that crashed with 266 people in them; $2+6+6=14$
- one plane was a 767 ($7+6+7=20$)
- the other a 757 ($7+5+7=19$)
- the 767 has 20,000 gal fuel capacity
- the 757 has a 124 foot wingspan ($1+2+4=7$)
- a 767 has a 156 foot wingspan; $1+5+6=12$
- one tower was 1,362 feet high; $1+3+6+2=12$
- the other was 1,368; $1+3+6+8=18$
- the supports are 39 inches apart; $3+9=12$
- the buildings were leased for 3.25 billion; $3+2+5=10$
- the other flights were AA 77 ($7+7=14$) and UA 93 ($9+3=12$) and UA 175 ($1+7+5=13$)
- flight 11 had 81 passengers ($8+1=9$)
- flight 77 had 58 passengers ($8+5=13$), 4 crew members and 2 pilots (total=64)
- Boston has 6 letters
- Massachusetts has 13 letters
- Pennsylvania has 12 letters

- Washington D.C. has 12 letters
- Los Angeles has 10 letters
- The number of hijackers was 19 ($9+1=10$)
- Names and words that don't have eleven letters in them: Osama bin Laden, [Khalid Al-Midhar](#), [Majed Moqed](#), [Nawaq Alhamzi](#), [Salem Alhamzi](#), [Satam Al Suqami](#), [Waleed M. Alshehri](#), [Wail Alshehri](#), [Abdulaziz Alomari](#), Dick Cheney, Laura Bush, Iraq, Iran, Pakistan, Muslim, Islam, Pentagon, World Trade Center, terrorism, jihad, Taliban, Koran, United States, anti-American, murder, fire, hell, stupid.

What Geller and other numerologists are doing is a game, a game played with numbers and with people's minds. Sometimes it is amusing. Sometimes it is pathetic.

See **related entries** on [confirmation bias](#), [dreams](#), [numerology](#), [selective thinking](#) and [synchronicity](#).

further reading

[reader comments](#)

- [Number Watch](#) - **All about the scares, scams, junk, panics, and flummery cooked up by the media, politicians, bureaucrats, so-called scientists and others who try to confuse you with wrong numbers.**
- [Coincidences: Remarkable or Random?](#) by Bruce Martin
- [Urban Legends Page](#)

[Diaconis, Persi and Frederick Mosteller, "Coincidences," in *The Encyclopedia of the Paranormal*, ed. G. Stein \(Amherst, N.Y.: Prometheus Books, 1996\).](#)

[Hines, Terence. *Pseudoscience and the Paranormal* \(Buffalo, NY: Prometheus Books, 1990\).](#)

Martin, Bruce. ["Coincidences: Remarkable or Random?" in *The Skeptical Inquirer*](#), September/October 1998.

[Paulos, John Allen. *A Mathematician Reads the Newspaper* \(Anchor Books, 1996\).](#)

[Paulos, John Allen. *Innumeracy: Mathematical Illiteracy and Its Consequences* \(Vintage Books, 1990\).](#)

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cosmobiology

Cosmobiology is a method of [astrology](#) developed by [Reinhold Ebertin](#) in the 1920's. Cosmobiology eschews the use of traditional house systems and uses a complicated charting method to develop a cosmogram of heavenly objects that places special importance on midpoints. A midpoint is a point half way between two planets (or other notables). For example, "the distance between 0 degrees Aries and 0 degrees Cancer is 90 degrees. Half of 90 is 45, so the midpoint would be located at 15 degrees Taurus."* [Cosmobiologists](#) consider "indirect midpoints" to be important, too. "The point opposite 15 degrees Taurus is 15 Scorpio: this is an indirect midpoint. In fact, it is common to use all indirect midpoints at 45 or even 22.5 degree intervals. Indirect midpoints carry nearly the same energy as a direct midpoint."* (It should be noted that cosmobiologists may still refer to what they eschew.)

Ebertin's influence increased astronomically after the publication of [The Combination of Stellar Influences](#) in 1940*, in which he gives interpretations for all possible planetary combinations and midpoints.

Cosmobiologists, like other astrologers, are consulted for advice in personal and business matters, assisting in medical diagnoses, and in [matters regarding fertility](#).

There are several reasons for the popularity of [pseudosciences](#) such as cosmobiology. The [pragmatic fallacy](#) is often committed in such matters because of the relative ease with which one can fit just about any piece of data to the theory. Analogies and metaphors are easy to see and are used to validate predictions. Also, many predictions will have a 50/50 chance of being right: *you'll have a boy (or girl), your business will succeed (or fail)*. Many will be vague: *you will come into some unexpected money; you will be traveling in the near future*. Finally, there is no way to disprove such theories. Whatever happens, either it can be made to fit the theory or an [ad hoc hypothesis](#) can be constructed to explain away the apparent refuting evidence.

Other factors likely to be involved in such belief systems are [the Forer effect](#), [selective thinking](#), [confirmation bias](#), [self-deception](#) and [wishful thinking](#).

See related entries on [astrology](#), [biorhythms](#), [crystals](#), [cold reading](#), [communal reinforcement](#), [the Forer effect](#), [fortune telling](#), [palmistry](#), [the placebo effect](#), [selective thinking](#), [self-deception](#), [sympathetic magic](#), [testimonials](#), and [wishful thinking](#).

further reading

[reader comments](#)

- [Some Points on Cosmobiology](#) by Veronica Chlap
- [The Astrology of Fertility](#) by Kathie Garcia
- [Gavin Melhuish](#) - One of Australia's most accurate and skilled [Cosmobiologists](#)

Eysenck, H.J. and Nias D.K.B. *Astrology: Science or Superstition?* (St. Martin's Press, New York:1982).

Kelly, I. W. "Cosmobiology and moon madness," *Mercury*, 10, 13-17.

Kelly, I.W. "Why Astrology Doesn't Work," *Psychological Reports*, 1998, 82, 527-546.

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reader comments:

astrology

09 Nov 2000

I read your criticism of Astrology with great interest. You appear to attack it primarily from one angle that the positions of the stars at the time of ones birth do not have a causal effect on the outcome of ones life. I think the argument is slightly flawed for discrediting Astrology and misses some important points.

Is it truly Astrologer's belief that there is a causal relationship from the positions of massive bodies in the universe to what happens to small bodies? Could it not be the opposite way around that the sum of states of small bodies at a given time dictate the positions of larger bodies? Isn't more likely that the sum of states of infinitesimally small "bodies" - sub-atomic particles, electromagnetic waves, gravitational waves, whatever - affect the states of large bodies - stars, galaxies etc, and vice versa continuously and simultaneously, a magnificent ebb and flow of constant energy throughout the universe, and is this not basically what Astrology is trying to say.

Surely the Grand Unified Theory that some of the world's greatest minds are dedicated to discovering is little more than a extension of Astrology, a theory that would enable us to say that given the precise states of every particle/wave in the universe bar one we could predict the state the remaining particle/wave with dead certainty - even though Heisenberg wouldn't allow us to demonstrate it.

Is not the universe a giant clock with the stars and galaxies for hands and the sub-atomic particle/waves teeth on the clock wheels. Knowing the position of the hands we should be able to predict the positions of individual teeth, and knowing how the hands move we can predict where the teeth will be at a future time.

I would have thought that the position of the stars at the time of your birth (using whatever criteria for defining that moment) would be intrinsically linked to the outcome of your life.

The snag appears when we consider whether it has been possible for Astrologers through the generations to have discerned an accurate correlation between the positions of stars and the way a person's life turns out. I suspect this to be quite impossible, and to follow the analogy further, akin to predicting the position of teeth on clock wheel knowing only the position of the second

hand.

So as I said at the start I believe your arguments against Astrology to be slightly flawed, but the result is essentially the same that Astrology is misguided at best criminal at worst.

The irony I guess is that your attempts to discredit the practice through reason are futile as these people and their ways of thinking are mere ticks of a clock that can't be stopped, but then again, I guess you can't help yourself.

An Eternal Fatalist.

Stephen Ross

Nov 2000

Thank you for providing us with the Skeptic's Dictionary, I find it an invaluable source of information and entertainment. Something which occurred to me whilst reading your astrology article: My partner is an identical twin. They were born within a few minutes of each other. One is heterosexual and one is homosexual. One is upbeat and positive, while the other is invariably depressed and negative. One is single and one (obviously) is in a relationship. Their lives, in other words, are quite different. Their destinies also, are unlikely to be very similar. I'd be interested to know the astrological explanation for this. I have become increasingly surprised by peoples ability to take what seems to be relevant to themselves from astrological readings (not hard, because of the vague way such statements usually seem to be constructed), and ignore the rest. As a test of this (as well as for my own, somewhat malicious, amusement), I have now begun to enthusiastically read people the wrong horoscopes from my newspaper, and it is quite amazing how relevant it is to their everyday lives. Another triumphant proof of astrology. I can't help smirking.

Cheers,

Danny

reply: If you find that amusing, take a look at this [article](#) with various predictions by astrologers about tomorrow's national election. It is hilarious.

[thanks to Ivan Kelly]

4 Jul 2000

Hi, I read your review of the "Astrology" entry and I would like to share with you some comments. As a philosophy student interested in logic and philosophy of science, I found that some of your reasoning was deficient. Let's see.

I- you say that

Astrologers emphasize the importance of the positions of the sun, moon, planets, etc., at the time of birth. But why are the initial conditions more important than all subsequent conditions for one's personality and traits? Why is the moment of birth chosen as the significant moment rather than the moment of conception? Why aren't other initial conditions such as one's mother's health, the delivery place conditions, forceps, bright lights, dim room, back seat of a car, etc., more important than whether Mars is ascending, descending, culminating or fulminating? Why isn't the planet Earth, much closer to us at birth, considered a major influence on who we are and what we become?

You seem to believe that since Astrologers cannot answer these questions satisfactorily, Astrology is wrong. However, you should notice that "why" questions (in the sense you are employing the word 'why') cannot be answered satisfactorily by anyone. Indeed, if I were to ask you, "Why are mass and distance relevant to the gravitational force, and not other properties, such as color, texture, etc.", or "Why does light propagate at 300.000 km/sec", what would you reply? This is what David Hackett Fischer in his "Historian's Fallacies" calls the fallacy of metaphysical question. You are asking a question that cannot be answered by empirical means. You, a skeptic, are, in fact, asking for metaphysical answer!

reply. Not really. My questions are rhetorical. I don't expect any answers or attempts at answers. I was trying to make two points. Obviously, you missed them. Perhaps others have missed them, too. So, let me try to clarify the points.

If heavenly bodies influence us, they should influence us continually with equal importance. No one moment should be any more significant than any other. I am trying to call attention to the arbitrary nature of astrology. Astrologers arbitrarily select birth as absolutely more significant than any other moment. I don't expect them to be able to explain why they pick this moment rather than any other, because I know any moment they select is arbitrarily selected. In no other field that I am aware of do significant causal events have arbitrary beginning points.

I was also trying to call attention to the apparent absurdity of holding that the more remote and distant something is, the more influential it is.

2- you say that

Correlation is not causality.

You seem to believe that there is something which IS causality. In other words, you are assuming that the distinction between accidental correlation and scientific law can be made. However, this is not a simple issue, and philosophers so far have not found a satisfactory answer to the task of giving

an acceptable criterion that separates correlation from causation. Some criteria have been proposed. For example, the notion of contrary to fact conditionals was once thought to be useful, but it has also showed some insurmountable problems. Besides, the notion of correlation is extensively used, for example, in medicine. Whether this is "causality" or not is unimportant. What matters is that if you are willing to accept this procedure as a valid test for, say, a drug, then you must also accept it in the field of astrology.

reply: I must say, you have lost me here. What do contrary to fact conditionals have to do with this issue. (For those who are wondering, a contrary to fact conditional is a conditional statement that cannot be proved false because the antecedent is false. In sentential logic, if the antecedent of a conditional statement is false, then the conditional statement itself is considered true. For example, if a student says "If I had studied, I would have aced the logic test." But the student didn't study, so we'll never know if studying would have led to acing the test. Like I said, I have no idea what this has to do with the 'correlation is not causality' issue.)

I don't know what you mean by 'accidental correlation.' Perhaps you mean correlation where there is no causality involved. Scientific laws are a different matter altogether from causal claims, so, yes I do think there is a distinction here. Most scientists do recognize that some correlations are not likely due to chance, and that in such cases it is reasonable to say things like "smoking causes cancer."

By the way, I'm not willing to take a drug on the grounds that 65% of those who have taken the drug say it makes them feel better.

Again, I was trying to make a point that was missed. So, let me try to clarify it. It is expected by the laws of chance that there will be some significant correlations (i.e., those not likely due to chance), which are, in fact, not indicative of a causal connection. Thus, finding a significant correlation between Mars and soldiers does not necessarily indicate a causal connection. If only one study found a significant correlation between smoking and lung cancer, the scientific community would not find it reasonable to insist on a causal connection there.

3- to demolish astrology I would have used a different and simpler strategy. It suffices to ask, "Is it falsifiable?" In other words, "Is it possible to predict an event that would refute the theory". If not, it is metaphysical, and Astrologers should not make any claims whatsoever regarding its empirical value, since Astrology does not speak about the world. If yes, it is scientific, and Astrologers should make their main hypotheses explicit. If they can't, they were lying, and either Astrology is metaphysical or it has not been proven to be scientific. That's it.

reply: I agree. However, astrologers do not agree on whether what they are doing is science or not. Some think it is and I think they've been refuted. Others think it is purely metaphysical. They can't be refuted, but they can still be criticized for having beliefs that are inane, useless, harmful, stupid, etc.

4- All throughout your articles (especially in your article about Transcendental Meditation) I see the fallacious tendency to label the conclusion of an argument as false when the reasoning that supports it is invalid. But this is a cross [sic?] mistake. Surely, there are plenty of cases in the history of science of scientists giving an invalid explanation of a phenomenon that could afterwards be explained correctly. Of course, I believe you know the difference between truthfulness and validity, but you should remember that the distinction also applies to those theories you don't like.

Pablo Stafforini

reply: I wish you'd be more specific. I don't think I ever label a conclusion of an argument as false *because* the reasoning supporting it is invalid. I hope either I have argued that the *reasons* given were false or questionable, and thus did not provide adequate support for their conclusions, or I have given independent reasons to support the claim that the conclusion of the argument is false.

16 May 1999

Your insights are brilliant, thought provoking, honest, sincere...and dare to make us look at reality, logic, sanity, reason and all the other little factors of being human that have allowed us to move forward and not gravitate into a quivering puddle and remain in a cave. I am an astrologer, I have been doing this for 25 years and have seen every nuance and facet of this new age spiritual pseudoscience hocus pocus that has come barreling into our lives...I am an astrologer..and I am a skeptic. I have NEVER felt it was a science...it should not BE a science....I am absolutely against it ever getting into a school system, if astrology belongs there then so does tarot, tea leaf reading, crystal balls and I-ching. The way it is currently used...applied in many cases to psychology by Jungian astrologers and archetypical astrologers, applied through psychic phone lines and intuitive astrologers is a weakening influence..not the strengthening influence many deceive themselves into believing. Anything that takes away our ability to be free-thinking, responsible individuals is weakening.

So what is it? It is a way to focus your mind into using COMMON SENSE. Nothing more, nothing less. I LOVE it....it is a passion...it has allowed me to find an interest in learning about our history as humans...it is colorful..entertaining....it allows me to deeply reflect....I enjoy the way it has woven through history...splashing color and drama now and then across our lives...it is a simple escape....it allows me to have an interest in other people and to try to see things through their eyes....it opens ME to finding MY own way

to deal logically, rationally with MY world. I could use...ANYTHING...or NOTHING..and come to the same conclusions....some people write their thoughts out, some seek quiet solitude, some listen to music, some doodle....all the same thing...a way to focus. It has always been my opinion that when the question is posed to astrologers that if their 'science' were literal why are they so dismally inaccurate judging HUGE current events...(note: not ONE big astrologer saw the current Kosovo crisis with their 1999 predictions..not ONE..saw the Columbine nightmare) and their reply is always.."because the future is a set of potentials and astrology can only highlight them". This IS..the answer in itself...astrology is merely a tool to give estimated guesses...which really only pulls on their own subconscious rationality.

Astrological, psychic and other metaphysical prophecy methods may actually weaken our ability to use our best judgment in these issues as estimated guessing gives an accuracy rate of about 53% while the others vary from 52% to 10%. There is rather large astrological society at this time that is now bombarding newspapers and other agencies trying to get grants, recognition and acknowledgement by using a convoluted stand that if astrologers had been taken seriously the tragedies at Columbine COULD have been prevented. This was horrifying to me and was when I decided I could not and would no longer even acknowledge that astrology was one of my creative interests. This is being done by the well known and respected astrologers in our country. They went on to say that astrologers had known long before that this generation of children had been born, that this kind of soul would be coming into the world and needed...'special'..guidance (from astrology of course). I reacted angrily and sent a long, overly emotional letter to them...basically asking.."if astrologers KNEW this was going to happen, why did they just sit there and WAIT for it to happen, are we not the people who RAISED this generation????? If astrologers KNEW it was going to happen doesn't that then make them RESPONSIBLE for letting it happen?? And can a group PROVE astrology is valid by condemning an entire generation of children??" Their reply was that they had been TRYING to warn everyone...by writing books...and that they weren't condemning anyone, they were merely trying to 'help'. I wonder what the world would be like if everyone wrote a book instead of using their minds and their compassion and energy to bring about needed changes in the world...? Hmmm...actually...I think we're living that question..and its answer.

Anyways.....I didn't mean to ramble..I just wanted to applaud and cheer you on. Many thanks...for having the guts..to do this.

Linda Rankin

reply: I didn't know what to say in response six months ago when I received this e-mail from Ms. Rankin. I still don't, except that I suppose anything can be entertaining and a means to self-discovery if used properly, but some things seem more likely to be misleading and potentially dangerous. I still consider astrology to be one of them and think that as light as she tries to be, her [website](#) and readings will be taken very

seriously by many.

17 Aug 1998

I saw the damdest thing on our local TV-news last night, they had a segment of a really hot new trend on Wall-street, they have brokers who can predict changes in the market down to the hour, by using astrology Ellen Jamieson is a stockbroker with a difference, she heads up a firm who specialise in Astro-Brokerage. She is apparently doing handsomely

I suppose we will have to follow suit and have some Sangoma throwing bones on Diagonal-street, why hell, that's probably what our Minister of finance does already!

Maybe that's why our prime rate has hit 28%

Pass them knuckle-bones baby!

Matthew Loxton
South Africa

reply: The Astrobrokers are big in the U.S., too.

30 Dec 1998

Up until now science has not agreed with astrology, but it is now beginning to do so. In coming to this increasing agreement, some new experiments have been helpful.

reply: I think it is just wishful thinking on your part that science is now in agreement with astrology in any significant matter.

For example, when we launched man-made satellites into space, we discovered that a wide range of radioactive rays from space, and the constellations are continuously bombarding the Earth. Nothing on the Earth is unaffected by this phenomenon. We know that the ocean is influenced by the moon, but we have not taken into consideration the fact that the same proportion of water and salt that occurs in the ocean also occurs in the human body -- the same proportion. Seventy percent of the human body consists of water, and the proportion of salt contained in that water is the same as is contained in the Arabian Sea. If the water in the ocean is affected by the moon, then how could the water inside the human body remain unaffected?

reply: Being bombarded by rays does not mean we are affected by them in

any significant way, much less that they affect our personalities, as astrologers believe. If we all have the same amount of salt and water, why aren't we all the same? Because that fact is irrelevant to our personalities and life histories. You are right that the moon affects the tides, but did you know that study after study has found absolutely no significant correlation between any phase of the [moon](#) and any human trait or activity? And did you know that of the [top ten scientific discoveries](#) made by the Apollo exploration of the moon, not one of them supports astrology?

Did you know that the Earth's chemical composition (by mass) is:

34.6% Iron
29.5% Oxygen
15.2% Silicon
12.7% Magnesium
2.4% Nickel
1.9% Sulfur
0.05% Titanium

Aren't you glad that your body is not 34.6% iron?

Did you know that the Earth's atmosphere is 77% nitrogen, 21% oxygen, with traces of argon, carbon dioxide and water?

Aren't you glad that your body is not 77% nitrogen?

Did you know that sea water has several other chemicals besides salt? Yes, [you can look it up](#). Salt water is about 3.5% salts (by weight). 30.62% of the salt is sodium and 55.07% chloride. Thus, the oceans contain 1.1 % sodium and 1.9% chloride. Sulfates make up 7.72% of the oceans' salts or 0.27% of the ocean is made of sulfates. The human body, on the other hand, is made of less that 0.25% each of sodium, chlorine, and sulfur. [You can look that up](#), too. (By the way, the average adult human body contains about 0.008% iron and about 3% nitrogen.)

Did you know that the oceans are about 0.04% calcium, but the human body contains about 2% calcium?

Now in this connection, two or three facts emerging from recent investigations must be kept in mind. For example, as the day of the full moon approaches, the amount of insanity in the world increases, whereas on the last day of the darker fourteen days, the least number of people go insane. As the moon grows brighter the level of insanity also begins to increase. On the day of the full moon, the greatest number of people enter madhouses; and on the last day of the moon's waning period, the greatest number of people are discharged from madhouses. Statistics are now available....

reply: Statistics might be available to support your claims, but they are inaccurate. There have been numerous studies on this topic and all of them have concluded that there is no significant correlation between [the full moon and madness](#).

In English there is the word lunatic; in Hindi we have the word chaandmara. Chaand refers to the moon, just as lunar does in English. Chaandmara is a very ancient term, and the word lunatic also is some three thousand years old. Some three thousand years ago, people realized that the moon affects the insane. But if it affects the insane, then how can it avoid affecting the sane?

Kira Reed

reply: I agree that the moon affects the sane and insane equally.

11 Jan 1999

Thanks for responding to my letter on astrology. The way you answered is very interesting.

You wrote:

**"Did you know that the Earth's chemical composition (by mass) is: 34.6% Iron
29.5% Oxygen
15.2% Silicon
12.7% Magnesium
2.4% Nickel
1.9% Sulfur
0.05% Titanium**

Aren't you glad that your body is not 34.6% iron? Did you know that the Earth's atmosphere is 77% nitrogen, 21% oxygen, with traces of argon, carbon dioxide and water? Aren't you glad that your body is not 77% nitrogen? Did you know that sea water has several other chemicals besides salt? Yes, you can look it up. Salt water is 30.62% sodium and 55.07% chloride. Sulfates make up 7.72% of the oceans. The human body, on the other hand, is made of less than 0.25% each of sodium, chlorine, and sulfur. You can look that up, too. (By the way, the average adult human body contains about 0.008% iron and about 3% nitrogen.) Did you know that the oceans are about 1.17% calcium, but the human body

contains about 2% calcium?"

What do these facts have to do with whether or not the planets and stars affect our psyche? Do you think that because I am an astrologer I believe the planets are made of cheese or something? I'm sure we have both been educated in the same manner, by the same educational system.

reply: I brought up these material facts because you brought up the fact about how the human body and the sea are alike and must be equally affected by the moon. My point is that coincidences are often given significance they do not deserve because we ignore other data which would quickly reveal the insignificance of a coincidence.

So you're no idiot and I'm no idiot. So let's really discuss the difference of our opinions here. We cannot prove there are psychological archetypes, but the science of psychiatry assumes they are there, and that archetypal symbols affect our personalities. (<http://www.jungindex.net/neher/>)

reply: I agree that archetypes can't be proved, but I disagree that psychiatry is a science (unless you are talking about biopsychiatry). Jung was a pseudoscientist, passing off his religious and metaphysical intuitions as if they were empirically based.

Archetypes have been symbolized for thousands of years by the planets and stars, as well as by mythological characters. Astrology is a science of symbols, a science that explores the psyche. Perhaps the planetary archetypal symbols affect our psyche, or the collective unconscious, causing changes in behavior.

reply: Astrology is a pseudoscience. It is either not empirically testable or it is and has been shown to be false (depending on which astrologer you talk to). I don't doubt that symbols affect the psyche, if we believe in the symbols. The evidence for a "[collective unconscious](#)" is about zero.

Symbols, like archetypes, are not thoughts. We must not "think" about them. Symbols evoke sensory and feeling responses. Consider this word picture "water." Ask your self, what do I feel on the surface of my skin when I imagine water? What do I hear? What taste does the image of water leave in my mouth? What smell comes to mind? What associations do I notice hovering around the fringes of my awareness? These are the questions we must ask if we wish to respond fully and consciously to symbols. Now that you have contemplated water, try this "cool, clear water." Ask the same questions? How does your experience change?

My answers are as follows. My skin feels lighter as if supported. It feels cool. I can feel reassuring undulations as if I am floating. I can smell the sea, watch the moon, and hear the gentle roar of the waves breaking on shore. Hawaiian music wafts on the air. It is warm and peaceful. If I contemplate the "cool"

water, the sense of well being intensifies. I can hear the incomplete but reassuring popular song from my childhood sung by a male singer but all I can make out is the phrase "cool, clear water." Healing, wholeness, peace, unity with nature, the womb are terms that come to mind. But there is another side. I start to move on writing; I see the image of drowning flash across my vision. Darkness falls, waves churn and roar, fear and death suggest themselves. Water is clearly a multi-valent symbol. The sensations, feelings, and associations evoked change with the context that I find. Water is life, at the beach on vacation and I am re-created. Water is death in the storm at sea and I am destroyed. Water, like the moon which is so closely associated with the sea, suggests the mystery of death and rebirth. Can we really say that the planets that symbolize so much to us have no effect on our behavior?

reply: From what you have just written, I would conclude that it is not planets but *symbols* that have influences on us. This is not a revolutionary idea and it goes nowhere toward validating astrology or Jung.

As C.G. Jung, a preeminent psychoanalyst, states:

"I have no answer to the multitude of problems that arise when we seek to harmonize the oracle [astrology]...with our accepted scientific cannons...The irrational fullness of life has taught me never to discard anything, even when it goes against all our best theories (so short lived at best) or otherwise admits of no immediate explanation. It is of course disquieting, and one is not certain whether the compass is pointing true or not; but security, certitude, and peace do not lead to discoveries... Clearly the method aims at self-knowledge, though at all times it has also been put to a superstitious use."

Kira Reed

reply: Those who prefer the "irrational fullness of life" are welcome to it, but we'd all be better off if such people were kept out of our hospitals, boardrooms and schools. I have learned to discard what is likely to be false, useless or harmful. Those who believe we should not discard anything, even the false or the contradictory, are lost at sea without a rudder, in my view. The meager amount of self-knowledge likely to emerge by being open to such things as astrology, biorhythms, channeling, chiromancy, [etc.](#), is not worth a life seeped in superstition. Life is fascinating enough without requiring childish superstition to jazz it up.

16 Jan 1999

I just read your exchange with the astrologer Reed. She claims that archetypes have been connected to the planets for a long time. This is false. The planets were connected to outward behaviors and associated feelings and closely tied to prediction for almost all of its history, and only recently (in this century) with Alan Leo, Rudyhar and Jung have attempts been made to make a more psychological astrology. This move was made in light of the devastating negative results of research (catalogued in Eysenck and Nias (1982) and Dean and Mather (1977)).

Furthermore, the statement "Perhaps planetary archetypes affect our personality" suggests that an empirical statement is being made here. It is not. The connections made by the recent, so-called psychological astrologers are contradictory and made by fiat. Astrologers have not published research studies attempting to connect planetary positions with psychological states. They have just tried to fit whatever seems to fit into the categories used by traditional astrologers. Different psychological astrologers imagine different connections.

Also, most of psychiatry does not use Jungian psychology and no appeals to archetypes are made, just as Jung plays a minor role in modern psychology (consult any intro psycho textbook). The long quote from Jung is counterproductive to Reed since it can be used against the theory of archetypes. He is saying don't be too cocksure about your theories, something perhaps astrologers should apply to their own beliefs. But, of course, how could they ever find error in their system? There is no methodology of investigation in astrology that astrologers as a community use to investigate and discard problematic tenets.

It is interesting to note how Reed shifts ground in her two e-mails. The first refers to empirical and testable claims regarding lunar and human fluid compositions and the second changes the subject to talk about symbols. This shifting of topics by astrologers was noticed by St. Augustine over one and a half millennia ago. He pointed out that astrologers will talk in physical, causal terms when it suits them, e.g. "Mars caused that man's violence", but if challenged, will retreat to "Mars was a symbol". Later one can catch them talking in causal terms again. Augustine pointed out that this slipping between different discourses was a way of always avoiding challenge and refutation.

Some astrologers are aware of the game that astrologers have been playing here. Cornelius, a prominent British astrologer, in his presentation at the United Astrology Congress last summer (1998) pointed out:

Intelligent critics of astrology maintain that astrologers have always managed to use the prevailing culture and ethos of the times in which they live (science and philosophy of the period) to disguise themselves and cunningly continue with

their practices. This is absolutely true. That is how our extraordinary form of symbolic consciousness has survived. We disguised ourselves as Aristotelian science for the better part of two millennia. Then we tacked ourselves onto modern science in the revival of two centuries ago when astrology disguised itself as magnetism and electricity, and later as radio waves. Depth psychology [i.e. Jung] is just the latest disguise. Perhaps we can do nothing else, for how can this form of symbolism survive without being in the corrupt position of lying about itself in some way in order to get by?

Cornelius contends astrologers have to re-think many of their basic assumptions and public deceptions.

Ivan Kelly



[astrology](#)

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The views of astrologer Prudence Jones

Guest Editor in the *Astrological Journal* 1996, 38(5), 281-284

Would Venus still bring experiences of love, beauty and pleasure to our horoscopes if it was called "Saturn"? Would Mars still make us decisive if it was called "Neptune"? That is, are the significances of the planets based on dispassionate observation of their effects, or on dogmatic symbolism which forces our observations to conform to our expectations? On what basis do we claim that the movements of particular planets are associated with events of various kinds? In the modern age we assume that the association of planets with particular qualities is based on centuries of empirical observation, of the ancients looking out and observing that for example Mars generally rose or culminated at the time of conflicts. But is it? Preliminary research (e.g. that of Michael Baigent in *From the Omens of Babylon*) indicates that this was not what the early Mesopotamians were doing at all, that the original meanings of the planets were not based on observation but on the conventional interpretation of a celestial script, the symbolic language of the gods. This was modified later on, but it still leaves the twentieth century mind with an uneasy feeling. How well founded, in our modern sense of being based on observation or experience, are the traditional meanings of the planets which we so confidently take as given?

In the modern age, the latest planet to be discovered was named after Mickey Mouse's dog. Yet Pluto predictably makes his appearance in our charts in his ancient guise as Lord of the Underworld, bringer of upheavals and guardian of buried treasure. How on earth can we justify this by normal scientific method? If the underworld effects are real, how do we explain them? Or do they not occur so reliably, and are we deluding ourselves with pious dogma? If the latter, does it matter? Can we defend a version of astrology which is not based on regularly observed correlations, on the famous "empirical method" of normal scientific procedure? A few years ago Geoffrey Cornelius (in *The Moment of Astrology*) put a strong case for reclaiming the divinatory aspect of our art. But with this and other rare exceptions, ever since the formulation of the laws of nature around the 7th century BCE, astrologers have tried on the whole to present themselves as scientists. But should we do so?

Such questions are part of any enquiry into the foundations of astrology. Foundations - the basic presuppositions we make in practicing our art - are what this issue is about (not history, as mistakenly stated in the last *Journal*). Questions about basics are often felt to be uncomfortable and often we don't want to ask them, dismissing them as trivial or time-wasting. But without facing them, we have no chance of knowing what place we should occupy in the world, much less of defending it against sceptics who ask precisely these questions. If answered thoroughly on the other hand, such questions can set our discipline on a firm basis and enable us to practice it responsibly and to defend it against uncomprehending attacks.

This issue presents astrologers' encounters with such fundamental questions. Nick Campion's article gives an actual example of how modern astrologers are interpreting a new planet right now: astrological method in action. The intricacies of publishers' deadlines prevent me from listing all this issue's articles in the editorial, but here are some more of the questions we are looking at. What, first of all, do we mean by "astrology"? Do we include the applied astronomy of cosmobiology, weather

forecasting and the practice of agriculture according to planetary positions? If so, it looks quite scientific. Do we include the study of planetary cycles, with its insight into social and economic change? Or do we continue ourselves strictly to the study of birth charts and their various directions? Do we include horary? Sun-sign astrology? Why - or why not?

The birth horoscope is one of the most difficult parts of astrology to justify to a non-astrologer. Why should the planetary positions of a moment in the past describe the supposedly continuing nature of an entity in the present? In the case of a living being we might appeal to the idea of imprinting by the birth trauma, and the idea of a personal character which endures throughout life is so well-entrenched in popular thought that even psychologists seldom think twice about it. But no birth trauma occurs at the "birth" of a country, a company, a resolution, a domicile and so on, all of which astrologers confidently take as having their own natal charts. Here we are decisively entering the realm of the occult even by claiming that such entities come into existence, let alone saying that they are described by the transits of the time of their emergence. How do we justify our use of the birth chart?

Similarly with the zodiac signs; they rest on shaky foundations from the modern point of view. How in heaven do twelve 30° sectors of the ecliptic, measured from the vernal equinox but named after now-far-distant constellations, impart any qualities at all to the planets, houses, parts and nodes which we view against their background? Do they do so in fact, or is this wishful thinking? Some astrologers justify the signs (taking, usually without explanation, the Sun in the signs as their exemplar) as shorthand for seasonal characteristics. But this implies that their order should be reversed in the southern hemisphere, which seldom happens. And what, in any case, of horoscopes for equatorial latitudes, where seasonal change is minimal, but where, of course, astrology was invented? The signs remain a particularly sticky problem for astrologers, let alone for outsiders.

The houses are easier to explain if not to justify, and as I argued in several articles a few years ago (e.g. in Annabella Kitson's anthology, *History and Astrology*), they probably have their origin in the static division of local space, the fixed sphere of the observer defined by the horizon, meridian and prime vertical, rather than in the motion of the ascendant. But the problem remains of how we should choose and project such divisions onto the ecliptic. Are the quadrant systems of division only applicable to the Mediterranean latitudes where they were invented, and should we adapt one of the local time-measuring systems for more extreme latitudes (as I have argued elsewhere), or not?

In day-to-day practice, most astrologers give up any pretense to empirical methods when they assert the truth of symbolic associations such as the planetary rulership of signs, their faces, terms, triplicates and so on, all of which, however well-attested in giving answers to questions, belong in a completely different universe of thought from scientific method, the observed correlation of certain planets with certain types of event. We easily forget that it requires some hard thinking to justify both sorts of associations in one system. A non-astrologer might be prepared to consider planetary transits across the mundane sphere as a possible area of empirical investigation, but would surely have some difficulty with the symbolic significance of dispositors and other planetary dignities. Fr Laurence Cassidy touches on this discrepancy in his closely-argued article - including a Platonic dialogue! Nick Kollerstrom too presents a dialogue arguing the differences between science and astrology - differences which many astrologers glide over.

We can of course set up camp with the theologians and psychoanalysts as interpreters of meaning to the bemused, rather than casting ourselves as quasi-experimental scientists. Astrology then would be a symbolic system, complete in that it explains (interprets) everything, consistent in that it does not (significantly) contradict itself, though it might contradict other people's deeply-held beliefs. But why throw away mundane predictions, the stock market and the test of natural astrology, as well as the few but significant experimental results which indicate that astrology does have an objective, sharable, replicable component? Professor Eysenck's review [of the Ertel/Irving book] in this issue concerns just one of the parts of "natural astrology" we would be foolish to ignore. Notice however that psychoanalysts, who have little or no empirical backing for their dogmas, are seen by society at large as honorary scientists, and even theologians cling onto intellectual respectability by the skin of their teeth, when even more than us they stand completely outside the materialistic paradigm. Only a few mavericks like Richard Dawkins dare grasp the nettle and link all three anomalous disciplines together.

Even within astrology, our various systems don't agree either. In horary astrology the Moon's north node is a point of ill-fortune, but in humanistic astrology it is the direction of personal growth. A planet may be in Cancer in sidereal astrology but in Leo in tropical astrology. Serious astrologers often decry Sun-sign forecasts as some sort of unfounded gibberish, but Sun-sign techniques (turning the chart, transits to "turned" house rulers, lunations in "turned" houses etc.) are in fact part and parcel of standard astrological method. The rules of traditional, modern (post-Theosophical), sidereal, and local space astrology (with its sidereal ancestor Vastu-Shastra) are quite different. Yet how many of us have decided that we would be tropicalists rather than siderealists, traditional rather than modern astrologers (or vice versa) after any process of sober reasoning? Philosophers, who in modern academe have claimed the study of "foundations" for their own, might observe in their own jargon that our subject seems to be in the "paradoxical", "pre-revolutionary" stage of competing theories before a fixed paradigm of "normal" astrology establishes itself as the One Truth, in the way that, for example, modern chemistry pushed out alchemy and the search for phlogiston, the combustible gas. Astrologers, on the other hand, might perfectly well retort that they don't want to follow the monotheistic pattern of the One Truth anyway and are happier to develop a pluralistic version of reality, in which different views of the universe are appropriate for different occasions. That, however, would be a philosopher's reply. In this issue, Jeff Meddle goes further than that and takes the ultimate astrologer's revenge, arguing that the philosophy of philosophers is actually a product of their natal astrology.

Astrology, nevertheless, remains a thorn in the side of modern thought, a way of thinking entirely outside the modern paradigm. This journal, produced in haste to a very short deadline, can only touch on a few of the issues involved, though it is probably fortunate that you have been spared long and thoughtful essays on ontological relativity or developments in the philosophy of science since 1953, if recent comments on the undesirability of philosophical articles are anything to go by. The AA Journal has touched on foundational issues before, especially in 1991-3, but here I have commissioned a series of articles in the spirit of standard Anglo-American language-and-logic philosophy, inviting people to examine their most basic presuppositions and see what remains of them after thorough dismantling. This approach might just be due (according to Jeff Meddle's article) to my natal Jupiter in Taurus, but I think you will find most of the outcome unstuffy and rather exciting, even, perhaps, controversial and infuriating. My thanks are due to Suzi Lilly-Harvey for originally inviting me to be a guest editor, and to Robin Heath for honouring her invitation. Happy reading, and I hope that some

readers might even feel stimulated to investigate the fifth AA Philosophy Day next spring.



the unconscious mind

The **unconscious** or **subconscious** mind, according to classical [Freudian psychoanalysis](#), is a "part" of the mind which stores [repressed memories](#). The theory of repression maintains that some experiences are too painful to be reminded of, so the mind stuffs them in the cellar. These painful, repressed memories manifest themselves in neurotic or psychotic behavior and in dreams. However, there is no scientific evidence either for the unconscious repression of traumatic experiences or their causal agency in neurotic or psychotic behavior.

The unconscious mind is also thought by some, such as [Jung](#) and [Tart](#), to be a reservoir of transcendent truths. There is no scientific evidence that this is true.

It would be absurd to reject the notion of the unconscious mind simply because we reject the Freudian notion of the unconscious as a reservoir of repressed memories of traumatic experiences. We should recognize that it was Freud more than anyone else who forced us to recognize unconscious factors as significant determinants of human behavior. Furthermore, it seems obvious that much, if not most, of one's brain's activity occurs without our awareness or consciousness. Consciousness or self-awareness is obviously the proverbial tip of the iceberg. But most interest in the unconscious mind has been restricted to potentially harmful memories that might be stored or stirring there, memories of bad experiences that influence our conscious behavior even though we are unaware of their impact.

It is assumed that the unconscious is distinguished from the conscious by the fact that we are aware of conscious experience, but unaware of the unconscious. However, there is ample scientific data to establish as a fact that some conscious perception goes on without self-consciousness. It is possible to be unaware of having experienced something and unable to remember the experience, but still give evidence that one has had the experience. Several examples should suffice to establish this point.

- 1. blindness denial.** There are cases of brain-damaged people who are blind but who are unaware of it.
- 2. jargon aphasia.** There are cases of brain-damaged people who speak unintelligibly but aren't aware of it.
- 3. blindsight.** There are cases of brain-damaged people who see things but are unaware of it.

4. oral/verbal dissociation. There are cases of brain-damaged people who cannot orally tell you what you just said, but they can write it down correctly. Furthermore, they can't remember what they wrote down or what it refers to.

Somehow it does not seem appropriate to speak of these cases as involving the unconscious mind, even though the perceivers are not aware of what they are perceiving. It might be less confusing to abandon talk of the unconscious mind and refer instead to "lost memory" or "fragmented memory" or "implicit memory" (a term coined by Daniel Schacter and Endel Tulving). It is not *repression* of traumatic experiences which causes memories to be lost. Memories are lost because of inattentiveness in the original experience and because the original experience occurred at an age when the brain was not fully developed. Memories are also lost because we have no recognizable need to reference the original experience. (Many fragments of pleasant experiences, such as the name of a place or a product, may be influencing present choices without one's being aware of it.) Memories are lost because of brain damage, loss of consciousness during an experience, neurochemical imbalance, cognitive restructuring, and sensory, emotional or hormonal overload. On the other hand, all the empirical evidence indicates that the more traumatic an experience the *more* likely one is to remember it. Novel visual images, which would frequently accompany traumas, stimulate the hippocampus and left inferior prefrontal cavity and will generally become part of long-term memory.

Neuroscience tells us that a memory is a set of connections among groups of neurons that participate in the encoding process. Encoding can take place in several parts of the brain. Neural connections go across various parts of the brain; the stronger the connections, the stronger the memory. Recollection of an event can occur by a stimulus to any of the parts of the brain where a neural connection for the memory occurs. If part of the brain is damaged, access to any neural data that was there is lost. On the other hand, if the brain is healthy and a person is fully conscious when experiencing some trauma, the likelihood that they will forget the event is near zero, unless either they are very young or they later experience a brain injury.

Long-term memory requires elaborative encoding in the inner part of the temporal lobes. If the left inferior prefrontal lobe is damaged or undeveloped, there will be grave difficulty with elaborative encoding. This area of the brain is undeveloped in very young children (under the age of three). Hence, it is very unlikely that any story of having a memory of life in the cradle or in the womb is accurate. The brains of infants and very young children are capable of storing fragmented memories, however. Such memories cannot be explicit or deeply encoded, but they can nevertheless have influence. In fact, there are numerous situations--such as [cryptomnesia](#)-- where memory can be

manifested without awareness of remembering. But such unconscious memories, even though pervasive, are not quite what Freud or Jung meant by the unconscious. "In Freud's vision, unconscious memories are dynamic entities embroiled in a fight against the forces of repression; they result from special experiences that relate to our deepest conflicts and desires. . . . [I]mplicit memories . . . arise as a natural consequence of such everyday activities as perceiving, understanding, and acting." (Schacter 1996, 190-191) Implicit memory may be far more mundane than Freud's dynamic 'unconscious mind', but it is more significant since it reaches into every aspect of our lives. As Daniel Schacter notes: "If we're unaware that something is influencing our behavior, there is little we can do to understand or contradict it." (191)

Most lost memories are lost because they were never elaborately encoded. Perception is mostly a filtering and defragmenting process. Our interests and needs affect perception, but most of what is available to us as potential sense data will never be processed. And most of what is processed will be forgotten. Amnesia is not rare but the standard condition of the human species. We do not forget in order to avoid being reminded of unpleasant things. We forget either because we did not perceive closely in the first place or we did not encode the experience either in the parietal lobes of the cortical surface (for short-term or working memory) or in the prefrontal lobe (for long-term memory).

To those whose lives are devoted to getting into the unconscious mind, either to find out why they have problems or to find some transcendent truth, I say you will be looking for a long, long time. You might better spend your time reading a book on memory or neuroscience.

See related entries on [codependency](#), [cryptomnesia](#), [hypnosis](#), [Carl Jung](#), [memory](#), [past life regression therapy](#), [psychoanalysis](#), [repressed memory](#) and [repressed memory therapy](#).

further reading

[reader comments](#)

- [Consciousness and Neuroscience](#) by Francis Crick and Christof Koch

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[Nrretranders, Tor. *The User Illusion : Cutting Consciousness Down to Size* \(Viking Press, 1999\).](#)

[Sacks, Oliver W. *An anthropologist on Mars : seven paradoxical tales* \(New York : Knopf, 1995\).](#)

[Sacks, Oliver W. *The man who mistook his wife for a hat and other clinical tales* \(New York : Summit Books, 1985\).](#)

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[Schacter, Daniel L. *Searching for Memory - the brain, the mind, and the past* \(New York: Basic Books, 1996\), especially chapter 6, "The Hidden World of Implicit memory". Review.](#)

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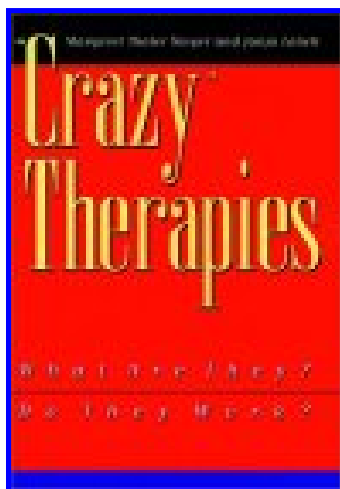
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"Crazy" Therapies

What are they?

Do They Work?

by Margaret Thaler Singer and [Janja Lalich](#)

San Francisco: Jossey-Bass Publishers, 1996

There are very few sure things in life, but the following guide to recognizing an incompetent, immoral or quack therapist is about 99.9% guaranteed.

You should not trust your therapist, regardless of his or her reputation, fame, diplomas, certificates, etc., if

1. **He or she tries to have sex with you or claims that having sex with one's therapist is "good therapy." Intimate sexual behavior, including erotic kissing, fondling or lovemaking, between therapist and patient is always inappropriate. (The Sexual Predator)**
2. **He or she tries to have you move in and do chores, keep the books, work the farm, have sex, etc. (The Exploiter)**
3. **He or she spends a lot of time during your sessions talking about his or her own personal problems, such as her husband's illness, his wife's frigidity, another patient's hang-ups, his sexual needs. (The Neurotic)**
4. **He or she requires as a condition for therapy that you cut off all relations with your spouse, children, parents and other loved ones. (The Cult Guru)**
5. **He or she claims to know what your problem is and how to fix it, even though no thorough history of you has been taken. (The Savant Idiot)**
6. **He or she claims that you must be hypnotized in order to discover either hidden memories or hiding entities which are causing your problems. (The Exorcist)**
7. **He or she specializes not in treating people for**

- specific problems such as depression or anxiety, but rather in treating people as if all problems have an identical cause. (The Johnny-One-Note)
8. He or she claims to have a technique which works miracles or works like magic, curing those who had heretofore been considered hopeless. (The Miracle Worker)
 9. He or she has a checklist which is claimed to be an excellent way to find out if you suffer from whatever the therapist specializes in, and you have enough checks to qualify. (The Scientist)
 10. He or she requires as a condition for therapy that you accept certain religious, metaphysical or pseudoscientific notions. To have good therapy you should not be required to believe in God, reincarnation, alien abductions, possession by entities, inner children, Primal Pains, channeling, miracles, or any of the many pseudoscientific theories popular among therapists. (The New Age Pseudoscientist)¹

Any potential patient should be able to identify all of the above traits, except for the last. How is the average person supposed to know what is scientifically accepted therapeutic practice and what is pseudoscientific rubbish? The patient needs a guide through the wonderland of fantasies, myths and untested hypotheses flourishing in the helping professions. Singer and Lalich provide such a guide in *"Crazy" Therapies*. They guide the reader through the various types of helpers: *psychologist, psychiatrist, psychoanalyst, various social workers, hypnotherapists, personal "coaches", seminar leaders, spiritual advisors, psychics, massage therapists, shamans, gurus* and every type of *New Age healer* imaginable. The authors also guide the reader through a maze of therapies that left me wondering why we have jails if these "healers" are not in them. Many of these therapies are not just useless; they are harmful. Reading this book may even encourage some people now considering a career in therapy to go into law instead. You may do more good that way--if you devote yourself to suing or prosecuting "crazy" therapists.

Those thinking of entering therapy and those in therapy who have some serious doubts about their therapists might want to jump to the section on "Consumer Guidelines" in the last chapter. Singer and Lalich provide much practical advice for those who are being asked to put a great deal of faith in a stranger who will be meddling with your mind, your emotional well-being and your life. They remind the reader/patient that you will be revealing very personal things about yourself and other people in your life. The decision to hire a therapist can be a monumental one. It should not be taken lightly. In 1987 "nearly eighty million psychotherapy visits were made at a total cost of \$4.2 billion" and, according to a 1994 survey, "a great portion of clients are satisfied with their psychotherapy." The authors provide a number of

questions to ask, as well as noting certain signs which should make you run for the nearest exit, such as therapists who try to humiliate you when you ask them questions about themselves or their practice.

In general, if your therapist is telling you that you have to get worse before you get better, is tearing you apart rather than building you up, is letting group members insult and ridicule you, is insisting that you must go deeper and deeper and deeper to feel the feeling, or is doing anything that smacks of old-fashioned ventilation theories, get out as fast as you can and look for a supportive therapist who will listen and respond with human decency. (p. 131)

If you are treated with disdain for asking about what you are buying think ahead: how could this person lead you to feel better, plan better, or have more self-esteem if he begins by putting you down for being an alert consumer? Remember, you may be feeling bad, and even desperate, but there are thousands of mental health professionals, so if this one is not right, keep on phoning and searching. (p. 205)

Most of *"Crazy" Therapies*, however, is devoted to describing the therapies and offering explanations for how such foolishness became so widespread. In a nutshell, the authors blame the popularity of crazy therapies on three things: the therapeutic relationship is by nature vague and ambiguous; the general increase in demand for instant gratification and the abdication of personal responsibility; and the flight from rational thought. There is no clear expectation of exactly how any particular therapy should progress. For all the client knows, the crazy notions of the therapist are considered general truths in psychotherapy. Blaming others for our problems seems natural. The master of therapy, Sigmund Freud, worked by insight and from the assumption that patient insight into the cause of his or her problem was the key to cure, so why shouldn't the modern therapist accept these unproved notions? Finally, the more bizarre a theory is, the more likely it will get a wide hearing in books and on talk shows. A claim is often valued not for its truth but for its being "exciting" or "mysterious". We want entertainment and excitement, not dry, rational discourse.

Most therapy and psychology bashers begin with hammering Freud, blaming him for all the zaniness that has flourished in the "helping professions." Singer and Lalich engage in their share of Freud-bashing, too. But blaming Freud for the faults of his followers is misguided at best and irresponsible at worst. Freud didn't wrap people in blankets or carpets and have them pretend they were in the womb, nor does anything he wrote suggest that such behavior would be proper. He never claimed he could cure any and all illnesses, nor did he blame his patients' parents for all their problems. He made a study of the irrational; he did not advocate glorifying irrationality. Freud may have been wrong about many things, but crazy therapists should take responsibility for

their own craziness. Freud is no more to blame for their crazy therapies than parents, aliens, spirit entities, etc. are to blame for patient problems, or that Jesus is to blame for Jim Jones. I would place Freud's *Civilization and Its Discontents* and his *Future of an Illusion* on any short list of books an educated person should read. To encourage the general public to believe that Freud was as moronic as some of his followers is to do a great disservice, for such notions will feed a popular prejudice as well as discourage the study and reading of one of the most creative and critical minds of all time. Freud recognized that spiritual beliefs are based on wishes and desires, not facts, evidence and rational argument. He would have disapproved of therapies which are thinly disguised metaphysical or spiritual belief systems. I don't think we have to guess at what Freud would have thought of therapist Sondra Ray's claim that "Rebirthers consider themselves to be spiritual guides, not scientists."

I wonder which of the crazy therapies discussed by Singer and Lalich would have annoyed Freud the most. I don't think Freud would have considered it very professional to have a patient suckle at your breast, as some therapists do. It is difficult to say which kind of therapist is the worst, but I cast my vote for the 10% who have sex with their patients. Maybe these are therapists who confused "Freud's the one who said *Everything is Sex*" with "he's the one who said *Sex is Everything*" while studying their *Cliff Notes*. Anyone seeking therapy is likely to be vulnerable, trusting and troubled, as well as ignorant of what is accepted therapeutic practice. He or she is easy pickings for a ruthless and unscrupulous therapist. To take advantage of one's power in that situation in order to satisfy one's narcissistic lust is unethical and criminal. All therapeutic professional associations condemn it and many states consider it a criminal offense for a therapist to engage in sexual acts with his or her patient.

On the other hand, I am tempted to say that there is more to fear from therapists who are well-intentioned and believe in possession by spirit entities, [past-life regression](#), [alien abduction](#), primal screaming and other unverified cathartic therapies, reparenting, [rebirthing](#), [neurolinguistic programming](#) (NLP), [facilitated communication](#) (FC), [Eye Movement Desensitization and Reprocessing \(EMDR\)](#), Neural Organization Technique (NOT) and a host of other unscientific notions. Singer and Lalich discuss the origins and dangers of each of these "crazy" therapies. One thing they all have in common is that they have not been proven effective by any independent scientific studies, nor are they generally accepted as effective in the scientific community. Their support comes mainly from the "insight" and observations of their founders, and patient feedback which is analyzed and evaluated by the therapists themselves. Most of the innovative therapists reviewed by Singer and Lalich seem uninterested in scientifically testing their theories, though most seem attached to technical jargon.

The "crazy" therapies examined all claim to be miracle cures and to work like magic. All except facilitated communication claim that their one approach

will work for just about everybody, no matter what their problem or situation. It is unlikely that *all* these cookie cutter theories--one size fits all--are correct, but none of their practitioners seem interested in any scientific studies which might prove once and for all which theory, if any, is correct.

Is it Leonard Orr's [energy breathing and rebirthing](#) theory?

Learn how to breathe energy well and you can breathe away physical and emotional pain, as well as diseases.

Is it Marguerite Sechehaye's and John Rosen's theory of [regression and reparenting](#)? Does your therapist have to become your surrogate parent to make up for the terrible job your real parents did?

Is it Jacqui Shiff's theory which requires to you to wear diapers, suck your thumb and drink from a baby bottle?

Is it Sondra Ray's and Bob Mandel's theory that your problems are due to the way you were born? They will help "[rebirth](#)" you, properly this time.

Is it John Fuller's, Bruce Goldberg's, [Brian Weiss's](#), Edith Fiore's, Richard Boylan's, David Jacobs' or John Mack's theory? They use hypnosis to discover your past or future lives as an [alien abductee](#), in an effort to help you.

Is it [John Bradshaw's theory of the "inner child"](#) you must nurture and be good to?

Is it [Arthur Janov's Primal Therapy](#)? You can eradicate all your Primal Pain if only you can learn the Proper Way to Scream and Capitalize.

Is it Daniel Casriel's [New Identity Process \(NIP\)](#)? Screaming unblocks what's blocked, but you need a better kind of scream than Janov's.

Is it Nolan Saltzman's Bio Scream Psychotherapy? His screaming is better than Casriel's or Janov's because it has more Love in it.

Is it Bhagwan Shree Rajneesh's [laughter](#) and meditation therapy?

Is it [repressed memory therapy](#)?

Is it [facilitated communication](#), [neurolinguistic programming](#) or [EMDR](#)?

Or perhaps the winner is Dr. Carl Ferreri, chiropractor, who invented NOT: [Neural Organization Technique](#). This man decided, without the slightest hint of scientific evidence, that all mental and physical problems are due to misaligned skulls. That's right. Other chiropractors are deluded for thinking that it is the spine which is malaligned and needs adjustments. No, it is the skull. Ferreri believes that as you breathe, the bones in your skull move, causing misalignments which can be corrected by manipulation. This theory was put into practice without the slightest proof that cranial bones move or that there is any sense to the notion of "standard alignment" of the cranial bones. Ferreri was not stopped by logic, however, but by lawsuits and criminal charges. His methods of pressing on eye sockets, skulls and jaws were described as "torture" by the parents of children he was treating for dyslexia. His methods were put into practice by the Del Norte School District in northern California after someone there had attended a seminar and came back full of enthusiasm for this wonderful new method of helping children with learning disabilities.

Which of the above has been scientifically shown to be superior to the others? None. Though their advocates claim their theories work for everyone, none of the theories has been put through any scientifically meaningful tests. Their evidence is in the self-validating analyses of their own observations and of their patient's claims.

Singer and Lalich go through the basic assumptions for each type of theory and find them all wanting.

Past-life regression and entity theories are based on the notion that if you discover the cause of your troubles you will be cured. There is no proof for this notion, despite its popularity since at least the time of Freud. Alien abduction therapy would seem to disprove insight and blame theories, since those who think their problems are due to having been abducted by aliens are not relieved and cured by this knowledge. To the contrary, they are made even more disturbed. Past-life regression therapy is considered "pure quackery" by the American Psychiatric Association. Singer and Lalich blame the spate of [alien abduction](#) claims on "[sleep paralysis](#)", therapist prompting, [source amnesia](#) and the popularity of the notion. (p.102) According to the authors:

"Age regression, reparenting, and rebirthing are not proven helpful techniques. There is no scientifically established objective clinical evidence showing them to be

beneficial." (p. 45)

"Because objective research on regression techniques is limited, the assumptions about regression remain merely myths based on anecdotal reports from enthusiastic proponents." (p. 26)

"Rather than helping clients to become stronger and more independent, most regression therapies, and in particular the rebirthing-reparenting sort, induce in the client an abdication of responsibility and a state of sickly dependence on the therapists. " (p. 26)

Cathartic theories are based on the notion that if you express your emotions you will purge yourself of your troubles. There is no proof for this notion, despite its popularity since the time of Aristotle. This notion would seem to have been disproved by experiments with children which find that rather than sublimate aggression when encouraged to be aggressive, the children become more aggressive. It also seems to be disproved every week during football and soccer season, where fans seem to increase their aggression levels while viewing their favorite teams in action. (My favorite story in the book is about the couple who go to a catharsis therapist to help them with their anger. He prods them until they physically assault each other and demolish his office. He sends them a bill for \$3,000 and tells them he won't have them as patients!) Singer and Lalich note that "The human organism learns as it acts; the more a certain behavior is practiced, the more it becomes a part of the person's automatic acts." (p. 129) Catharsis therapists seem oblivious to this notion and seem surprised when previously calm patients begin making life miserable for others by becoming more and more aggressive. According to the authors, "...rational therapies assist clients to find ways to talk with others, to change situations, and to identify socially useful and mature means to reduce anger-producing interactions and situations." (p. 130)

Reparenting and rebirthing theories are based on the notion that adults have problems because their parents were inadequate. There is no proof of this notion, despite its popularity since the time of Cain and Abel.. "During the course of the therapy, clients regress, become dependent, have their self-esteem and sense of self attacked and diminished, and to some degree lose touch with their previous everyday reality orientation." (p. 130)

Hypnotherapy is extremely popular and is practiced by thousands of therapists who got their training in a weekend seminar or a short course. Singer and Lalich note that

There are no licensing requirements, no prerequisites for training, and no professional organization to which those who hypnotize others are accountable. You can be a real

estate agent, a graphic artist, an English teacher, or a hairdresser and also call yourself a hypnotherapist by hanging a certificate on your wall that states you took as few as eighteen hours of courses in hypnosis.

This lack of oversight leads to all sorts of abuses and malpractice. (p. 53)

The authors quote Martin Orne: "The cues as to what is expected may be unwittingly communicated before or during the hypnotic procedure, either by the hypnotist or by someone else, for example, a previous subject, a story, a movie, a stage show, etc. Further, the nature of these cues may be quite obscure to the hypnotist, to the subject, and even to the trained observer." (p. 96) Yet, many hypnotherapists seem oblivious to the dangers and pitfalls of using hypnosis in a therapeutic session.

In fact, many therapists seem oblivious to facts with which any competent therapist should be concerned. For example, it is amazing that all these therapists develop theories which exclude the possibility that a patient might either have a physical problem or a character flaw. No patient is physically ill. And no patient is responsible for his or her problems. It is always someone else or something else which has the faults. Patients apparently never lie, manipulate, deceive, cheat, distort, rationalize, err, etc. If a patient has a "fault," it is that he or she is not completely trusting of the therapist. Patients have "mental diseases" or "syndromes," not character flaws. It would be an astounding fact to discover that emotionally disturbed or mentally troubled persons are completely without flaws in their moral character! Yet, these advocates of crazy therapies seem to treat all patients as if they were innocent children, incapable of the slightest peccadillo.

If there is a major weakness in *"Crazy" Therapies*, it is that the book does not address the issue of neurochemical disorders (aka mental illness). The authors do not attempt to distinguish people who are having "life problems" but not major neurochemical problems. If you are schizophrenic or bipolar, you will not find this book useful in trying to decide what therapist to see. If you are a family member or loved one of a person with a major neurochemical problem, this book will not help you figure out what you can do to help. Only a person without paranoid delusions, without mania, who is taking his or her medication and is no longer in denial about their illness, could possibly use a check list such as the authors present to help evaluate a potential therapist. It is the family members of the ill person who need guidance. It might be unrealistic to expect a person who needs therapy to be a rational consumer in choosing a therapist, but I don't think it would be too much to ask for some guidance for loved ones of those needing therapy or medical treatment.

Unfortunately, the guidance needed by loved ones of the mentally ill is not a check list for choosing a therapist but a handbook for combat with the mental

health professionals who often seem to be little more than obstacles to treatment and recovery. They often seem more interested in following rules, especially rules about "the patient's rights," than they are in making a decision as to what would be the best treatment for a person with a mental illness. The duty to help the patient get well has been obfuscated by officious minions of the court who have misleading titles such as Patient Advocate. Getting through to doctors and social workers is roadblocked by "privacy" issues. Trying to find out what is being done to help your loved one or what you can do to help or provide vital information (such as the discovery of a suicide note) are made difficult rather than easy. Some advice on how to deal with officials whose job is to see that if your mentally ill loved one does not want to take his or her medicine, then by God it is his or her right not to do so and the State will fight to protect this vital individual freedom to the death, or to a contrary court decision, whichever comes first. These petty officials will not care that your non-rich and usually thrifty loved one has just spent her entire life savings on philanthropic enterprises, several cars and trucks she does not need and can't afford, and is sure she is being transported to a higher place of being. The patient may reduce herself to homelessness during a manic explosion, but your tax dollars will not be spent trying to prevent this or minimize the damage. Your tax dollars will be spent for the salary of a Patient Advocate who will know nothing about the patient, but will go to court for her to make sure her "rights" are protected. One right that won't be protected, however, is the right to get well. Maybe in their next book, Singer and Lalich can give some guidance for people seeking care for their mentally ill loved one.

Finally, it is quite amazing that most of the therapists discussed by Singer and Lalich seem oblivious or indifferent to their role in priming and prompting their patients. They condition their patients, prompt them, and in some cases, clearly plant notions in their patient's minds. They give their patients books to read or videos to watch not to help the patient understand a problem but to prime the patient for belief in some crazy therapy. They plant notions during hypnosis, group sessions, etc., and then these planted notions are "recovered" and offered as validation of their therapeutic techniques and theories. Rather than provide real therapy, these "crazy" therapists indoctrinate patients into their own worldviews. This is surreal pseudoscience at its worst. Singer and Lalich have done a great service by exposing some of the worst psychotherapy has to offer. They write: "To society's loss, there is an alarming laxity within the mental health professions when it comes to monitoring, commenting on, and educating the public about what is good therapy, what is negligent behavior by trained professionals, and what is or borders on quackery." (p. 21) *"Crazy" Therapies* is a first-rate attempt to make up for this deficiency.

Margaret Thaler Singer has been a clinical psychologist, researcher and teacher for over fifty years. She is currently an emeritus adjunct professor of psychology at the University of California, Berkeley. For the past twenty years, she has also done work on [cults](#) and is considered an expert in the field

of cult menaces.

[Janja Lalich](#) is an educator, author and consultant in the field of cults and psychological persuasion.

Their book is humorously illustrated by cartoonist [Jim Coughenour](#).



[Order from Amazon Books](#)

Bob Carroll
May 29, 1997

¹ All of the above descriptions are found in *Crazy Therapies*, but of the terms used to describe these types of therapists only "Johnny-One-Note" is used by Singer and Lalich.

further reading

- ["New Therapy for Trauma Doubted"](#) by Judy Foreman

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[Recommendations and Rejections](#)



enneagram

All knowledge can be included in the enneagram and with the help of the enneagram it can be interpreted. And in this connection only what a man is able to put into the enneagram does he actually know, that is, understand. What he cannot put into the enneagram makes books and libraries entirely unnecessary. Everything can be included and read in the enneagram. --P.D. Ouspensky, *In Search of the miraculous**

I teach it in conjunction with a psychiatrist who has a deep interest in the Enneagram. The psychotherapists want it as a very useful, hot tool to work with normal, high-functioning people. You see, there is no psychology for the normal and high functioning person....

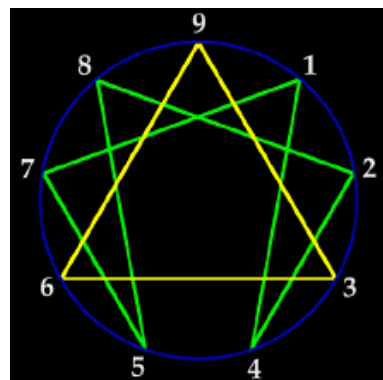
I've had ONE's who have so repressed their anger that they don't think they're angry....

...the spiritual agenda is paramount, which is this conversion process. Whether we know it or not, we're all transforming, because we're hungry for the opposite of our vice. Even if we don't know about our vice, we suffer from lack of its opposite tendency.

----Helen Palmer, of the Oral Tradition

The fundamental premise of the enneagram is that each of us has one dominant (not exclusive) energy that drives us in everything we do. This dominant energy is our greatest gift so we use it too much and it becomes our chief fault - or sin. This energy, like a prevailing wind that bends a tree permanently, sculpts our interior geography and shapes our entire life. --[Enneagram Central](#)

An enneagram is, literally, a drawing with nine lines. Figuratively, however, the enneagram is a New Age mandala, a mystical gateway to personality typing. The drawing is based upon a belief in the mystical properties of the [numbers 7](#) and [3](#).^{*} It consists of a circle with nine equidistant points on the circumference. The points are connected by two figures: one connects the number 1 to 4 to 2 to 8 to 5 to 7 and back to 1; the other connects 3, 6 and 9. The 142857 sequence is based on the fact that dividing 7 into 1 yields an infinite repetition of the sequence 142857. In fact, dividing 7 into any whole number not a multiple of 7 will yield the infinite repetition of the sequence 142857. Also, $142857 \times 7 = 999999$. And of course 1 divided by 3 yields an infinite sequence of threes. The triangle joining points 3, 6 and 9 links all the numbers on the circle divisible by 3. To ascribe metaphysical or mystical significance



to the properties of numbers is mere superstition and a throwback to an earlier time in human history when ignorance was considered a point of view (apologies to "Dilbert" and Scott Adams).

The enneagram represents nine personality types. How the types are defined depends on whom you ask. Some define them by a *fundamental weakness or sin*. Others define them by a fundamental *energy* that drives one's entire being. Some follow classical [biorhythm theory](#) and classify the nine types according to three types of types: *mental, emotional and physical*. Others classify the nine types according to three types of instinctual drives: the Self-Preserving drives, the Social drives and the Sexual drives.* Some follow [Gurdjieff](#), who claims to have followed Sufism, and type the types as *mental, emotional and instinctual*.

The one who seems to be the father of the enneagram, Oscar Ichazo (b. 1931), spoke of *enneagons* (nine-pointed figures, enclosed in a circle, with straight lines connecting each point to two others) and *ego fixations* corresponding to each of the nine points. (Ichazo learned of the enneagram through [Ouspensky's](#) writings of [Gurdjieff](#).) He called his system *Arica*, after the coastal city in northern Chile, near the Peruvian border, where he opened his first school. In the early nineties, there were "forty or so Arica training centers, located in the United States, South America, Europe and Australia."*

The Arica system constitutes a body of practical and theoretical knowledge in the form of a nine-level hierarchy of training programs aimed at the total development of the human being.... The Arica system observes that the human body and psyche is composed of nine independent yet interconnected systems. Particular imbalances within these systems are called "fixations".... These nine separate components are represented by enneagons-- nine pointed figures that map the human psyche....[T]here are seven fundamental enneagons associated with the nine ego fixations. Thus, the enneagons constitute the structural maps of a human psyche ... [and] provide a guide through which a person may better understand oneself and one's interactions with others.... An ego fixation is an accumulation of life experience organized during one's childhood and which shapes one's personality. Arica training seeks to overcome the control and influence of the ego fixations so that the individual may return to the inner balance with which he or she was born.

Ichazo would make claims like 'the dominant passion of the *Indolent* fixation is *Sloth*; the dominant passion of the *Resentment* fixation is *Anger*; and the dominant passion of the *Flattery* fixation is *Pride*.' In short, he developed a typology of "ego fixations" based on the classical Christian notion of the

[seven capital sins](#) plus *fear* and *deceit*.

Ichazo claims to have been trained in the mystical arts of Sufism, the [cabala](#) and Zen, and to have studied martial arts, yoga, Buddhism, Confucianism, the [I Ching](#) and [alchemy](#). He was called the "continuation of [Gurdjieff](#)" by filmmaker Alexandro Jodorowsky ("El Topo," "The Holy Mountain"), who claims to have spent a weekend expanding his consciousness with Ichazo and LSD. Ichazo claims he began teaching the enneagram after spending a week in a "[divine coma](#)" (Keen). Ichazo never claimed to have a scientific basis for his theory of personality types, ego fixations, etc. His notions were based on visions and insights taken from numerous eclectic sources and freely mixed into an amalgam of mystical psychobabble.

Ichazo claimed to have discovered the personality type meaning of the enneagram while in some kind of ecstatic state or trance under the influence of some spirit or angelic being: the Archangel Gabriel, the "Green Qu'Tub" [a Sufi spiritual master] or Metatron, the prince of the archangels.*

Like Gurdjieff, he claimed we are born with an essence (nature) which conflicts with our personality (nurture), and we must struggle to harmonize the two and return to our true essence. He founded his [Arica Institute](#) in the late 1960s. The Institute continues to exist, though it has contracted somewhat from its heyday in the early 1990s, and now offers training in "Nine Hypergnostic Systems" and *T'ai chi chuan* in centers in New York and Europe.

Several former disciples have modified Ichazo's teachings during the past twenty years. [Claudio Naranjo](#) attended Ichazo's lectures on enneagram personality types in Santiago, Chile, in the 1970's and published a book called *Enneatypes in Psychotherapy* in 1995. A Jesuit priest named Bob Ochs got the enneagrams from Naranjo and taught courses on enneagrams at Loyola University in Chicago in 1971. Naranjo also taught [Helen Palmer, who claims to be carrying on the esoteric oral tradition in her writings](#). By the time the enneagram got to Palmer it was imbedded with western psychological notions. Nevertheless, it remained a set of teachings without any scientific foundation.

[Helen Palmer](#) is the author of *The Enneagram: Understanding Yourself and the Others in Your Life* (1988). [Arica sued Palmer for copyright violations but lost](#). Nevertheless, she seems to have based her work upon Ichazo's but changed the terminology. *Enneagram* replaced *enneagon* and *personality type* replaced *ego fixation*, for example.

Palmer says that the "Enneagram is a psychological and spiritual system with

roots in ancient traditions." She types people by fundamental weakness or sin: *anger, pride, envy, avarice, gluttony, lust, sloth, fear, and deceit*. She calls these weaknesses "capital tendencies." Each of us has a personality that is dominated by one of the nine capital tendencies. Knowing what type you, and what type others are, will put you on the road to "self-understanding and empathy, giving rise to improved relationships," says Palmer.

Each personality type is numbered and labeled.

The Nine Personality Types and the Nine Capital Tendencies

The Perfectionist	One	anger
The Giver	Two	pride
The Performer	Three	deceit
The Romantic	Four	envy
The Observer	Five	avarice
The Trooper	Six	fear
The Epicure	Seven	gluttony
The Boss	Eight	lust
The Mediator	Nine	sloth

Personality typing is somewhat arbitrary. The classification systems used by Ichazo, and modified by Palmer and others according to their own idiosyncratic beliefs, are not without merit. For example, one certainly could learn much of importance about oneself by focusing on one's central fault or faults, but those who advocate using the enneagram seem to be interested in much more than a bit of self-knowledge. Entire metaphysical systems, psychologies, religions, cosmologies and New Age springboards to higher consciousness and fuller being are said to be found by looking into the enneagram. There is seemingly no end to what one can find in these nine lines.

Some, for example, have developed personality profiles for different "styles" of personalities.

Style Five

The life of the style Five centers on their thinking. Healthy Fives are both highly intellectual and involved in activity. They can be, if not geniuses, then extraordinarily accomplished. As the most intellectual of the nine types, they are often superb teachers and/or researchers. Many healthy Fives are fine writers because of their acute observational skills and a developed idealism. They are

highly objective and able to see all sides of a question and understand them.

When Fives become less healthy, they tend to withdraw. Instead of dealing with their sensitivity by being emotionally detached from results, they split off from reality, living in worlds of their own creating and not answering the demands of active living. Their natural independence as a thinker degenerates into arrogance. They can become quite arrogant or eccentric. In the movies, Fives are the "mad professors."

Fives you may know: Bill Gates, Scrooge, Buddha, T. S. Eliot, John Paul Sartre, Rene Descartes, Timothy McVeigh, Joe DiMaggio, Albert Einstein, H. R. Haldeman, Ted Kaczynski, Jacqueline Onassis and Vladimir Lenin.*

What this typology is based on is anybody's guess. But it is reminiscent of astrological forecasts and is probably best evaluated in terms of the [Forer effect](#). There does not seem to be any way to validate this typology. At the heart of this New Age spiritual psychology are a number of concepts vaguely reminiscent of [biorhythms](#), [numerology](#), [astrology](#), [tarot card reading](#), and [Myers-Briggs](#) personality inventories. Nothing in the typology resembles anything approaching a scientific interest in personality.

The above Style was said to be mine as a result of a test I took. However, the test came with the following advisory:

Does this fit you? If it does not, go back over the test, rethink some of your answers and see if you come up with your style. This is not easy. Your enneagram style is an energy you have been using without knowing all your life. You have a vested interest in not knowing this energy because it may slightly alter what you have considered your motivation for many things. Besides, this energy has a down side you may not like to acknowledge.

If the style doesn't fit, go back and change some answers until it fits but be careful because you may be deceiving yourself when you answered the questions the first time or you may be deceiving yourself with your revisions! Note also how the profile contains several weasel words: 'can be', 'are often', 'tend to', 'can become'. The central feature of the Five is *thinking*. Nobody needs a personality test to determine if his or her dominant *energy, drive, fixation, passion*, etc., is the intellectual. Thinkers are observers and intellectuals are often arrogant. This is not a scoop. Nor is it very useful, as is evident by the listing of people who are allegedly all Fives.

The limits of the enneagram are the limits of the imagination of those who work with them. One [master](#) claims that the Five's "primary passion is avarice in terms of their time and possessions, and their chief feature is withdrawal from experience." Another "[expert](#)" describes the Five as The Thinker and identifies this type by its dominant fear: *fear of being overwhelmed by the world*. We are told that if we want to get along with a Five

Be independent, not clingy. Speak in a straightforward and brief manner. I need time alone to process my feelings and thoughts. Remember that if I seem aloof, distant, or arrogant, it may be that I am feeling uncomfortable. Make me feel welcome, but not too intensely, or I might doubt your sincerity. If I become irritated when I have to repeat things, it may be because it was such an effort to get my thoughts out in the first place. Don't come on like a bulldozer. Help me to avoid my pet peeves: big parties, other people's loud music, overdone emotions, and intrusions on my privacy.

This is good advice for getting along with just about anybody, except for those who would rather be at a big party after spending the afternoon alone with a book.

We are also told that for a Five to reach his potential he must go against the grain and strive to be like an Eight, whose main vice is lust. The scientific studies supporting this claim seem to have been lost, however.*

Some think there are sixteen basic personality types and use [The Myers-Briggs Type Indicator®](#). As Jung said, there could be any number of types, even 360 (McGuire 342), if we wished. Who is right? Maybe they're both wrong. Perhaps we need only think of two types, [those from Mars and those from Venus](#), as John Gray, [Ph.D.](#), claims.

See related entries on [astrotherapy](#), the [Forer effect](#), the [Myers-Briggs Type Indicator](#), [numerology](#), and [tarot cards](#).

further reading

- [Golf and the Enneagram](#)
- [ARICA INSTITUTE, INC., Plaintiff-Appellant, v. Helen PALMER and Harper & Row Publishers, Incorporated, Defendants-Appellees](#). No. 771, Docket 91-7859. United States Court of Appeals, Second Circuit. Argued Jan. 30, 1992. Decided July 22, 1992.
- [Romancing the Enneagram](#) by Don Riso (reformed enneagrammy---well, not completely reformed: Rebecca Newgent's doctoral

dissertation at the University of Akron proved [Riso's version of the Enneagram](#) is scientifically valid and reliable.)

- [The Enneagram and the MBTI®](#)
- [Tell Me Who I Am, O Enneagram](#) by Mitchell Pacwa, S.J.
- [A BRIEF REPORT ON THE ORIGINS OF THE ENNEAGRAM](#)
- [The Enneagram in the Electronic Tradition](#)
- [Enneagram Central](#)
- [Instinctual Subtypes of the Enneagram](#)
- [9Types](#)
- [Authentic Enneagram](#)
- [The Essential Enneagram](#)
- [Free Enneagram Personality Test - The Quick and Dirty Approach - Which Shape Do You Like most?](#) [I took this test and found I liked four of the shapes. It really worked! I agreed with each of my four personality assessments!]
- [An Introduction to the Enneagram](#) Thomas Chou (the future John Mack of neuroscience? He claims Bill Clinton is a "9", i.e., a Mediator or Peacemaker. I would have thought he is an "8", the Boss dominated by lust. But, as Mr. Chou says, "It is empirically observed that numerically adjacent types are often mixed in the same individual." What more proof of the enneagram could one want?)
- [The Enneagram Personality Types By Enza Vita](#)
- [Through the Wasteland of the Counterculture](#) (Jodorsky, El Topo, Ichazo, etc.)
- [THE NUMBER SEVEN](#) by H. P. Blavatsky
- [Gurdjieff and the Enigmatic Enneagram](#)

Keen, Sam "Interview with Oscar Ichazo" *Psychology Today*, July, 1973.

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Miracle](#) Oct 8, 2002

miracles

A miracle is "a transgression of a law of nature by a particular volition of the Deity, or by the interposition of some invisible agent" (Hume, 123n). Theologians of the Old & New Testament religions consider only God-willed contravention of the laws of nature to be true miracles. However, they admit others can do and have done things which contravene the laws of nature; such acts are attributed to diabolical powers and are called "false miracles." Many outside of the Biblical based religions believe in the ability to transgress laws of nature through acts of will in consort with [paranormal](#) or [occult](#) powers. They generally refer to these transgressions not as miracles, but as [magick](#).

All religions report numerous and equally credible miracles. Hume compares deciding amongst religions on the basis of their miracles to the task of a judge who must evaluate contradictory, but equally reliable, testimonies. Each religion establishes itself as solidly as the next, thereby overthrowing and destroying its rivals. Furthermore, the more ancient and barbarous a people is, the greater the tendency for miracles and prodigies of all kinds to flourish.

...it forms a strong presumption against all supernatural and miraculous relations that they are observed chiefly to abound among ignorant and barbarous nations; or if a civilized people has ever given admission to any of them, that people will be found to have received them from ignorant and barbarous ancestors, who transmitted them with that inviolable sanction and authority which always attend received opinions (Hume, 126).

While there are still many people today who believe in miracles, no modern historian fills his or her books with accounts of miraculous events. It is improbable that the report of even a single miracle would find its way into such texts today. Indeed, only those who cater to the superstitious and credulous, such as the *National Enquirer* and a good portion of the rest of the mass media, would even think of reporting an alleged miracle without taking a very skeptical attitude towards it. No scholarly journal today would consider an author rational if he or she were to sprinkle reports of miracles throughout a treatise. The modern scholar dismisses all such reports as either lies or cases of [collective hallucination](#).

Hume was aware that no matter how scientific or rational a civilization became, belief in miracles would never be eradicated. Human nature is such that we love the marvelous and the wondrous. Human nature is also such that we love even more to be the bearer of a story of the marvelous and the wondrous. The more wondrous our story, the more merit both we and it attain.

Vanity, delusion and zealotry have led to more than one [pious fraud](#) supporting a holy and meritorious cause with gross embellishments and outright lies about witnessing miraculous events (Hume, 136).

Hume's greatest argument against belief in miracles, however, was modeled after an argument made by John Tillotson, Archbishop of Canterbury. Tillotson and others, such as William Chillingworth before him and his contemporary Bishop Edward Stillingfleet, had argued for what they called a "commonsense" defense of Christianity, i.e., Anglicanism. Tillotson's argument against the Catholic doctrine of [transubstantiation](#) or "the real presence" was simple and direct. The idea contradicts common sense, he said. The doctrine claims that the bread and wine used in the communion ceremony is changed in substance so that what is bread and wine to all the senses is in fact the body and blood of Christ. If it looks like bread, smells like bread, tastes like bread, then it is bread. *To believe otherwise is to give up the basis for all knowledge based on sense experience.* Anything could be other than it appears to the senses. This argument has nothing to do with the skeptical argument about the uncertainty of sense knowledge. This is an argument not about certainty but about reasonable belief. If the Catholics are right about transubstantiation, then a book might really be a bishop, for example, or a pear might actually be Westminster Cathedral. The accidents of a thing would be no clue as to its substance. Everything we perceive could be completely unrelated to what it appears to be. Such a world would be unreasonable and unworthy of God. If the senses can't be trusted in this one case, they can't be trusted in any. To believe in transubstantiation is to abandon the basis of all knowledge: sense experience.

Hume begins his essay on miracles by praising Tillotson's argument as being "as concise and elegant and strong as any argument can possibly be supposed against a doctrine so little worthy of a serious refutation." He then goes on to say that he fancies that he has (118)

discovered an argument of a like nature which, if just, will, with the wise and learned, be an everlasting check to all kinds of superstitious delusion, and consequently will be useful as long as the world endures; for so long, I presume, will the accounts of miracles and prodigies be found in all history, sacred and profane.

His argument is a paradigm of simplicity and elegance (122):

A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined.

Or put even more succinctly (122):

There must...be a uniform experience against every miraculous event, otherwise the event would not merit that appellation.

The logical implication of this argument is that (123)

no testimony is sufficient to establish a miracle unless the testimony be of such a kind that its falsehood would be more miraculous than the fact which it endeavors to establish.

What Hume has done is to take the commonsense Anglican argument against the Catholic doctrine of transubstantiation and applied it to miracles, the basis of all religious sects. The laws of nature have not been established by occasional or frequent experiences of a similar kind, but of *uniform* experience. It is "more than probable," says Hume, that all men must die, that lead can't remain suspended in air by itself and that fire consumes wood and is extinguished by water. If someone were to report to Hume that a man could suspend lead in the air by an act of will, Hume would ask himself if "the falsehood of his testimony would be more miraculous than the event which he relates." If so, then he would believe the testimony. However, he does not believe there ever was a miraculous event established "on so full an evidence."

Consider the fact that the uniformity of experience of people around the world has been that once a human limb has been amputated, it does not grow back. What would you think if a friend of yours, a scientist of the highest integrity with a Ph.D. in physics from Harvard, were to tell you that she was off in Spain last summer and met a man who used to have no legs but now walks on two fine, healthy limbs. She tells you that a holy man rubbed oil on his stumps and his legs grew back. He lives in a small village and all the villagers attest to this "miracle." Your friend is convinced a miracle occurred. What would you believe? To believe in this miracle would be to reject the principle of the uniformity of experience, upon which laws of nature are based. It would be to reject a fundamental assumption of all science, that the laws of nature are inviolate. The miracle cannot be believed without abandoning a basic principle of empirical knowledge: that like things under like circumstances produce like results.

Of course there is another constant, another product of uniform experience which should not be forgotten: the tendency of people at all times in all ages to desire wondrous events, to be deluded about them, to fabricate them, create them, embellish them, enhance them, and come to believe in the absolute truth of the creations of their own passions and heated imaginations. Does this mean that miracles cannot occur? Of course not. It means, however, that when

a miracle is reported the probability will always be greater that the person doing the reporting is mistaken, deluded or a fraud than that the miracle really occurred. To believe in a miracle, as Hume said, is not an act of reason but of [faith](#).

See related entries on [collective hallucinations](#), [faith](#), [magick](#), [prayer](#), [Satan](#), [wicca](#) and [witches](#).

further reading

[reader comments](#)

- [Miracles and Modern Scientific Thought](#) Professor Norman Geisler
- ["Miracles"](#) in the Stanford Encyclopedia of Philosophy
- [Examining Miracle Claims](#) by Joe Nickell
- [Worcester Bishop Releases Preliminary Findings in Audrey Santo Case](#) by Joe Nickell
- [No Math In Miracles - Why Miracles And Math Don't Mix](#) by John Allen Paulos.
- [Miracles](#) from the [Skeptiseum](#)

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reader comments:

Atheism

29 Sep 2000

First, let me thank you for devoting so much time to cataloguing and refuting many of the more destructive myths of the modern world. I find the Skeptic's Dictionary extremely interesting and valuable, as much as a tool of understanding scientific practices and thought as for the specific information it contains.

Let me preface the following by saying that I do not believe in god, and tend to alternate between atheistic and agnostic thought. I read today your article on atheism, and was somewhat surprised at it's contents. It seems to be the only writing in the Skeptic's Dictionary that is not particularly skeptical. In fact, it seems largely to be an apology for atheism, and an attack on the belief of god, rather than skepticism about atheism. I believe that there is the same lack of empirical evidence for the non-existence of god as there is for the existence of god. I would submit that while there is no problem with taking the non-existence of god as an article of faith (as I do), it may be somewhat misleading to include it in a body of work called The Skeptic's Dictionary. Again, thank you for providing such a good resource.

Peter Darley

reply: As I say on the front page of the SD: we have *skeptical definitions and essays on occult, paranormal, supernatural and pseudoscientific ideas and practices with references to the best skeptical literature.* I state in the Introduction that "The reader is forewarned that The Skeptic's Dictionary does not try to present a "balanced" account of occult subjects." If you want a book skeptical of atheism, logic, scientific methodologies such as using controlled experiments, empirical and materialistic philosophies, common fallacies of reasoning, naturalistic explanations, etc. (all of which have entries in the SD), then write it yourself.

14 Jul 1999

I am writing to you concerning your article regarding atheism. I wish to comment on the arguments that you presented against the existence of God and furthermore the way in which you approached the topic.

1. God is metaphysical, and as such, if he does exist, it is impossible to empirically prove his existence. It is therefore ridiculous to claim that he does not exist because there is no empirical proof.

reply: I have a feeling this is about the only thing we are going to agree on.

2. the whole article was written from the perspective of an atheist, and thus most the arguments tended to come from the perspective of an atheist attempting to justify their position. This is a poor technique to adopt, as it attempts to win the debate not by arguing, but rather putting down your opponents. After reading your article someone who was undecided about the existence of God would probably be swayed against belief in his existence, not by the power of your arguments, but by patronizing believers.

reply: Read the [introduction](#) to the SD. My purposes are stated there. As to your evaluation of how a reader would respond: is that how you responded? I don't think so. What does that imply?

3. the claim that we are imperfectly designed is not valid for two reasons. Firstly relies on the claim that we know the purpose for which we were designed, a claim which can not be substantiated. Secondly it assumes that we know what all the parts of an individual organ are for (to use the example of the ear, a long time ago people might have questioned what was the purpose of some of its components for an organ that was required for hearing. We now know that the ear also is responsible for maintaining balance).

reply: God is inscrutable. We can't know why he does anything. Yet, we can be sure that he has a purpose for everything. How? If we can't know the mind of God, then how can we know that there is a purpose to everything? Logically, the inscrutability of God implies that we can't have a clue as to God's purposes or lack of purpose. All these messages and signs that humans think they are getting from God may be nothing but delusions. God may really have nothing to do with your team's victory. In fact, God may not give a hoot about sports. God may not have saved your child. God may not be rational, if we allow that God is inscrutable. However, if we can't assume that God should be at least as nice and as intelligent as a moderately moral human of average intelligence, then we might as well abandon the topic of God and purposes.

4. science will never be able to determine the origins of this universe. This universe must have begun at some stage, therefore firstly space had to be created, and secondly matter had to be created. This means that something had to come from nothing, which violates one of the most basic laws of physics. Whilst this does not prove the existence of God (who being metaphysical, can not be empirically proved), it does make one less sure in their atheism.

Duncan Gill

reply: Your concept of space is very naive, but let's cut to the chase. If God is something and nothing can come from nothing then who made God ... ad infinitum. It may be mind boggling to you to imagine a world without a beginning, but it should be no less difficult to imagine any other thing, God included, as existing without a beginning.

Mr. Gill replies:

The idea that something supernatural did not have a beginning is not nearly as mind boggling as this universe not having a beginning. Mainly because one must rely on a scientific standpoint which states that the laws of physics remain constant over time (and therefore something couldn't have come from nothing), or must say that the laws of physics can change overtime, a claim that presents rather large problems for science seeing as one of the main aims of science it to have retest reliability, and furthermore opens itself up to the problem of what causes the laws to change? Which then leads us back to something external from the universe.

reply: Your logic escapes me. But if there is a God, what caused God to be and what causes God to create, etc.? You say God is uncaused and created the universe. Yet, God is immutable. How can an immutable being, who by definition is everything that is, bring anything into being without bringing about change? If God is unchangeable, then creation is impossible. Obviously, if there is a God, God is mutable. Nature is mutable. Who needs God to explain anything?

Metaphysical entities are necessarily subject to "time" in the same way as entities in the physical world are. There is nothing to suggest that a metaphysical entity such as consciousness has a beginning - the only thing that can be claimed is that we remember being conscious up to a certain point in our past. Therefore it is not impossible that a metaphysical entity could have always existed.

reply: Is Mickey Mouse or Hamlet "subject to time", whatever that means? Every birth of every conscious creature proves (it doesn't just suggest) that consciousness has a beginning. Your concept of time is as naive as your concept of space.

What is a "metaphysical entity"? Do you mean non-physical being? If so, your point has already been granted: any kind of being *could* have always existed. Nature could have existed for eternity; God could have existed for eternity. We can't ignore the existence of Nature. We have no need to posit the existence of God.

11 May 1999

It has been awhile since I last emailed you, and I have finished my book, "And God made a mop, and it was good!"

I have put together a very strong (logical) argument for the mind of God, and the spiritual influence of God's mind on us through love and knowledge. Please consider the following:

1. Particle physicists allow for existence of virtual particles based solely on their effects as observed in particle accelerators. No different than the mind of God as seen through Alcoholic's Anonymous and its growth and proliferation into numerous spiritual treatments for obsessive behavior and continued mental health after the behavior is under control.

Reply: I beg to differ. The two cases are quite different. They share only the superficial similarity of being explanations. We have empirical methods of evaluating scientific explanations and eliminating the vast majority of them. We have nothing analogous with metaphysical claims. (Both types of explanations can be eliminated as unreasonable if they are logically flawed, i.e., self-contradictory or contradicted by experience.)

2. Quantum theory allows for matter to exist in multiple states, and the state depends on the method used to measure. The mind of God as measured by individuals will always reflect the state of the individual's mind. Therefore, God's effects are not individually and scientifically repeatable, but on a macroscopic scale generalizations can be made about the direction that God moves both individuals and society.

reply: Your analogy to quantum theory is inappropriate. That theory is proposed to account for what is actually observed under different conditions and for what seems to be implied by other (accepted) notions in physics. Believing that there is a God and that God has a mind are unnecessary hypotheses for the explanation of anything. The claim that any human idea of God is subjective is true but trivial. In this sense, every idea anyone has is subjective. Your conclusion seems to me to be a non sequitur.

Proof: changes in individual behavior after spiritual experiences that are out of the norm (assumes only physical human intervention is accepted as normal). Peace felt by parents after death of a child. Both parents independently received telepathic communication from dying child while in hospital telling them that she would be OK. Proof: commonality of religious beliefs. Proof: Commonality of society's desire to organize in govts. Proof: Social movements by spiritual leaders like Ghandi or Martin Luther King.

reply: Proof of what? That people believe they are in communication with spirits? We already knew that.

3. *Statistical results from [Ganzfeld](#) type experiments open the door for the brain to be a source of perception independent of the physical senses. Quantum teleportation proves that the vehicle for tremendous knowledge transfer exists in minute states over infinite distances. Thus, the mind of God can communicate directly with the individual human brain, and supply information that is not directly available to the individual through their own perception. Proof: the death of my mom over 400 miles away!*

reply: ? Are you saying you killed your mom by paranormal means?

4. *Tremendous amounts of moneys spent on Alternative Therapies only validate man's gut feeling that spirit-mind-body connection is real. Mind body connection is already accepted through relaxation and stress reduction techniques and their resultant influence on the immune system. Spirit mind connection is established above. So why doesn't it makes sense that the knowledge and love that God can provide would promote physical healing if a good relationship between man and God exists. My college experience is proof. My body was paralyzed as I carried on a telepathic conversation with God. No scientific theory exists to explain that other than the obvious. The voice was not of my own making, and I was not in a hypnopompic (whatever) state. I was totally conscious except that I could not move, and I had free will to choose to say whatever I felt. The brain has a tremendous capacity to create all sorts of chemical reactions in the body, so it only makes sense that if a force external of us can affect the brain then our health could be affected too. Fraudulent faith healings, crystal therapy, etc. clouds the spiritual argument with a lot of noise, but logic can see the spiritual influence in the human experience.*

Ray Wilcox

reply: It seems that from your own comments you recognize that all the phenomena you attribute to God could be due to nothing more than biochemistry.

15 Apr 1998

*This is in response to many of the entries I've read in your **Skeptic's Dictionary** regarding religion vs. atheism: I am glad being an atheist brings you comfort because that is one of the main purposes to beliefs, in my opinion. That is why I don't quibble, as many Christians do, between the branches of Christianity. If a person feels like they have a more comfortable relationship with God in a Catholic Church than a Protestant Church, a Baptist Church than in a Pentecostal Church, or a Methodist Church rather than a Lutheran Church, then who am I to tell them they are worshiping God the wrong way? How am I supposed to know which way God prefers? We will all find out the "truth" for ourselves when we die and I have faith that God is forgiving and merciful, just as the scripture promises.*

reply: I don't know what gave you the idea that I find *comfort* in being an atheist. I find neither comfort nor discomfort in atheism. You are apparently not alone in believing that one should choose his or her beliefs according to how much comfort they provide. I don't subscribe to this view. I have a feeling that many of your fellow Christians would chastise you for encouraging people to relate to Christianity in whatever way feels comfortable.

As I'm sure you can tell by now, I am not comforted by the idea that everything is an accident and there is no purpose to life. Please allow me to explain the method to my madness, or delusion if you prefer.

I don't understand how there can be morals when there is no God. I don't understand how a person can determine a "right" or a "wrong." You seem to believe these concepts exist since you have written that pornography that teaches men that women enjoy being raped and mutilated is a lie. Why does a lie offend you? Why does it even matter whether or not it is a lie? Why does it matter what women or anyone else in the world enjoys? What makes it matter?

reply: It is for people who believe as you do that we have laws. You apparently would not refrain from murdering children unless you believed God ordered you to refrain from such behavior. Even if God unequivocally peeked through the clouds and revised the ten commandments to allow murder and theft, our laws would still require you to refrain from such behavior. Or do you think that the only reason we have such laws is because God requires us to honor other people's lives and property?

You obviously are not a student of philosophy or you would know that the majority of ethical theories and arguments in Western philosophy are not based on a belief in God. In fact, most of them have been developed specifically to establish moral values on non-religious grounds. This is not the place to try to explain [Aristotle's ethics](#), or [Bentham](#) and [Mill's Utilitarianism](#), or [Kantian ethics](#), etc. I suppose I find it just as difficult to understand why you or anyone needs God to define morals for them. Would you really not be offended by rape if God said it was ok? Would murder not seem wrong to you if God did not forbid it? Could you live in a world where lying was as valued as telling the truth, even if God permitted lying?

You may think you are living according to God's word when you "love your neighbor as yourself" but it is you who has to put an interpretation on those words in a specific human context. It is you who decides how to act in a concrete situation. Such rules, even if they come from God, don't interpret themselves. You have to take full responsibility for how you act. If you want to believe that God inspires believers to interpret the rules "correctly" then you will have to explain why so many people who claim to be inspired by God contradict one another and often seek each other's

destruction. In the final analysis, all moral rules are interpreted and applied by humans, which makes them *human* rules, whatever their origin. Your view makes it sound like we are all children who have to be told right from wrong because we will never grow up and figure it out for ourselves.

Whether a person believes that God took up clay and breathed life into it or amino acids were mixed together in the primordial soup, either way all life on this planet is dirt. Living matter is made up of iron, carbon, calcium, water, all elements found in the earth. So if a person is an atheist, and believes that it is purely chance that life exists, then what does it matter what these elements feel? It was purely chance that these elements were imbued with feelings in the first place, who cares if they are hurt? A person is just going to die and go into the grave and become nothing but elements again anyway, why does it matter what they did or what was done to them when they were alive?

reply: Life may be dirt, but it is not *only* dirt, any more than Beethoven's *Ninth Symphony* is *only* sounds or the Grand Canyon is *only* rocks. The sperm and egg which gave rise to your existence came together purely by chance. Do you think that had your parents been atheists they would have thought less of your uniqueness? The sentiment you express--that since none of us gets out of here alive we might as well just kill ourselves--doesn't make sense to me. If this is all there is, then why not make the best of it? You might as well argue that since we all live forever, what difference does it make what we do while we are alive? If you believe this is all there is, it makes it all the more special and deserving of our interest.

What does life matter? It was an accident. It's not a gift. It's not a right. It just happened. So what makes murder wrong? A person is going to die anyway. What does it matter if it's today or 10 years from now? What does it matter if it hurts their family? Their family is just breathing dirt and they will die and not have feelings any more either.

reply: If the only reason you are not harming people is because you believe God forbids it, then I encourage you to continue in this "comforting" belief. Don't ever change. But consider that the family is no more *just* breathing dirt than a galaxy is *just* atoms. Life may not be a right, but neither is the taking of life. It may not matter to you whether I die today or ten years from now, but it matters to me. Just because something does not matter to you, does not give you the right to destroy it.

It has been my observance that many people, perhaps even most, will try to get away with anything they can if they believe they won't get caught. So if there is no God keeping an eternal tote board, if we are just elements that accidentally started breathing and thinking, then what does it matter what we do? It doesn't matter if a baboon steals another baboon's food, it doesn't matter if a guppy eats its own babies, why should it matter if a human being does the same things? What makes it wrong if there's no God to tell us it's wrong and punish

us?

reply: You must hang around with a rough crowd. My experience has not been that most people do whatever evil they can get away with. I would be the last to say that most members of the human species are saints. Most are neither great sinners nor saints. It might give you comfort to believe that all the cruel and evil persons on the planet are atheists and all the good ones are theists, but your belief is false. By the way, where does God say "Thou shalt not eat thy children"?

We're supposed to be better than animals because we have a conscience. The guppy doesn't care if she swallows all her offspring. The baboon doesn't care if his neighbor starves. We're supposed to be above that. Why? Why does our conscience matter if there is no soul attached to it that will be made to pay for its wrongs? Why should anyone feel guilt?

reply: It is true that we don't usually think other animals have moral obligations because they don't have the ability to understand right from wrong or the power to control their behavior. But there is no need to posit a soul in order to understand either conscience or guilt. These are socially and biologically induced. Sociopaths and psychopaths, who behave as your baboon or guppy, are not to be explained by their lack of souls or lack of belief in God (some of them even think they are divine themselves). The answer is more likely social and biochemical than theological.

You can argue that an atheist doesn't commit "wrongs" because he doesn't want someone to do the same things to him ("Do unto others as you would have them do unto you," in other words), but why does an atheist care what happens to him? Why is self-preservation important? It was an accident that he is alive, that he has feelings, and he's going to go into the grave where he won't have feelings or memories of what caused them anymore. How egotistical to care about yourself when you are just dirt.

reply: I can't speak for other atheists, but I know why I don't want others to harm me: it hurts and I don't like being hurt. Do you only refrain from killing yourself because you believe God says suicide is a no-no? Such a belief hardly seems comforting.

That's my opinion, anyway. If life is an accident, then we are just like rats and cockroaches. Rats and cockroaches don't care for each other, just as we don't care for them. We have a conscience, but it must be an accident too if there was no God to lay down the guidelines for "right" and "wrong." If we have no soul or God keeping track of us, then humans aren't any more important than rats and cockroaches. Why should we care for each other then? Rats and cockroaches will probably outlast human beings, why not emulate them?

reply: In a very real sense, humans *aren't* more important than rats and

cockroaches. Every living thing is an equal, evolutionally speaking: we've all proved we are fit to survive. We are like rats and cockroaches in the way you mention: we're all the result of accidental and purposeless processes. But, unlike rats and cockroaches, we can choose to make our lives meaningful or not. Life is meaningless, but lives are not. How meaningful your life is depends on you and the choices you make. Why would you think that your life could only be meaningful if you were created to play a role in a Divine Comedy?

I read on your web page that Christians are egotists. It seems to me that atheists are egotists as well. Atheists don't have a "higher power" or anyone to answer to but themselves. They are the centers of their own universes. Please tell me if you honestly think I am wrong. Please explain to me the basis for the atheist moral code. Please explain to me how anything can be important if everything is just an accident. Please tell me how you can stand the idea of an existence that will culminate in nothingness. I don't think I could get out of bed in the morning knowing that, upon my death, I will live only in the memories of people who knew me, and when they die I will cease to exist altogether. Then why even bother living? In the vain hope that I accomplish something great that will immortalize me in the history books? How egotistical. Please tell me, what is your motivation to live if you are going to be dust?

reply: I think you may be referring to my claim that concern for one's own eternal salvation as the ultimate goal in life is the ultimate in selfishness. The goal of existence is to achieve eternal bliss for oneself. On the other hand, I don't see how it follows that because atheists do not recognize a higher power we must believe that we are each the center of our own universes. I take you to think that this means that we only care about ourselves. Nothing could be further from the truth. Atheists have families, jobs, communities, interests, etc.

You ask about my own personal motivations for not killing myself. I'll die soon enough. I have a lovely family. I have a job I find very satisfying. I enjoy writing pieces like this one. I enjoy the company of a good book or a good friend. I have many interests and find many things very interesting and enjoyable. Do I ever stop and ask myself, *why don't you kill yourself right now, since you're going to die anyway?* No, I can't say that such questions plague me.

I doubt you will persuade me to adopt your beliefs any more than I will persuade you to adopt mine.
(name withheld by request)

reply: Well, we agree on one thing at least.

1 May 1998

I have read your point of view on Atheism and God. You defend your points well. However, your "imperfect universe" argument doesn't seem to hold water. Like Nitzan Herzog said, God would know what the best design of systems is. Your counterargument was that you "don't try to disprove the existence of God by pointing out inefficiencies and imperfections of design." This seems to a weak response, sort of a cop-out. You respond that we are "abandoning reason" by saying that God uses different standards. Why is that abandoning reason? I imagine my standards on good music and beautiful women are different than yours. Why does this argument bother you? At the very least you should give some reasons why the "imperfect universe" argument is still a convincing argument for atheism. And if it's not ... I recommend you remove that portion from the page.

reply: I grant that a perfect Being would know what is the best design of a universe. If God is perfect, then anything emanating from God must be perfect. Maybe God is not perfect. Or maybe God does not exist.

On a different note, what is your view on Jesus Christ? You probably agree that he was a man who preached, etc. in the first century, so I'll take that for granted, although I suppose you could believe he never existed.

reply: My view does not differ substantially from [Bertrand Russell's](#) ("Why I Am Not a Christian").

According to your arguments, all of his miracles must have been delusions by all who viewed them. He claimed to be God - since you don't believe in God, you must believe he's a liar. So do you think Christ was a creator of mass delusion? A master of deception?

Donald Lowe

reply: If he claimed to be God, as you claim he claimed, he could have been deluded or he could have been a liar. But I don't think he claimed to be God. He did claim that the end of the world was at hand, and he was wrong. If anyone was a creator of a mass delusion, it was [Paul of Tarsus](#). As for my view on miracles, see my entry on [miracles](#).

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[atheism](#)

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Ramtha (a.k.a. J.Z. Knight)



Ramtha - Cromagnon Warrior
from Atlantis
disguised as J.Z. Knight

Ramtha is a 35,000 year-old spirit-warrior who appeared in J.Z. Knight's kitchen in Tacoma, Washington in 1977. Knight claims that she is Ramtha's [channel](#). She also owns the copyright to Ramtha and conducts sessions in which she pretends to go into a trance and speaks Hollywood's version of medieval or Elizabethan English in a guttural, husky voice. She has thousands of followers and has made millions of dollars performing as Ramtha at seminars (\$1,000 a crack) and at her Ramtha School of Enlightenment, and from the sales of tapes, books, and accessories (Clark and Gallo 1993). She must have hypnotic powers. Searching for self-fulfillment, otherwise normal people obey her command to spend hours blindfolded in a cold, muddy, doorless maze. In the dark, they seek what Ramtha calls the 'void at the center.'

Knight says she used to be "spiritually restless," but not any more. Ramtha from [Atlantis](#) via Lemuria has enlightened her. He first appeared to her, she says, while she was in business school having extraordinary experiences with [UFOs](#). She must have a great rapport with her spirit companion, since he shows up whenever she needs him to put on a performance. It is not clear why Ramtha would choose Knight, but it is very clear why Knight would choose Ramtha: fame and fortune, or simple delusion.

Knight claims to believe that she's lived many lives. If so, one wonders what she needs Ramtha for: she's been there, done that, herself, in past lives. She ought to be able to speak for herself after so many reincarnations.

Knight claims that spirit or consciousness can "design thoughts" which can be "absorbed" by the brain and constructed "holographically". These thoughts can affect your life. If this means what I think it means, then Knight has taken the notion of proving the obvious to new heights: she has discovered that one's thoughts can affect one's life.

Knight not only has rewritten the book on neurology, she has also rewritten the book on archaeology and history. The world was not at all like the scholars of the world say it was 35,000 years ago. We were not primitive hunters and gatherers who liked to paint in caves. No, there were very advanced civilizations around then. It doesn't matter that there is no evidence for this, because Knight has rewritten the book of evidence as well. Evidence is what appears to you, even in visions and hallucinations and delusions. Evidence is anything you feel like making up. So, when you are told that

Ramtha came first from Lemuria in the Pacific Ocean, do not seek out scholars to help you understand that ancient civilization because the scholars of the world do not believe Lemuria existed except as a fantasy. When you are told that the Lemurians were a great civilization from the time of the dinosaurs, do not expect to be burdened with evidence. There isn't any evidence. The only mammals around at the time of the dinosaurs were primitive and non-hominid, very much like lemurs. Maybe the Lemurians were really lemurs. No, the Lemurians came from "beyond the North star," according to Knight, which may explain why all humans ever since have looked to the sky with longing.

But as cool as Lemuria was, it could not compare with its counterpart in the Atlantic Ocean. Knight's story of Ramtha in Atlantis is too bizarre to retell. Let's just say that Ramtha was a warrior who appeared to [Edgar Cayce](#) and leave it at that. Her story is appealing to those who are not comfortable in today's world. The past *must* have been better. It must have been *safer* then, and people must have been *nobler*. This message is especially appealing to people who feel like misfits.

Ramtha, like Christ, ascended into heaven, after his many conquests, including the conquest of himself. He said he'd be back and he kept his promise by coming to Knight in 1977 while she was in her [pyramidiot](#) phase. She put a toy pyramid on her head and lo and behold if that wasn't a signal for Ramtha to return to the land of the living dead:

And he looked at me and he said: "Beloved woman, I am Ramtha the Enlightened One, and I have come to help you over the ditch" And, well, what would you do? I didn't understand because I am a simple person so I looked to see if the floor was still underneath the chair. And he said: "It is called the ditch of limitation", and he said: "And I am here, and we are going to do a grand work together."*

Apparently, the first rule of the wise is: *beware the ditch of limitation*. Knight's husband-to-be must have fallen into the ditch. He was there at the time Ramtha first invaded his girlfriend's body, but he was so busy lining up pyramids with a compass that he didn't see Ramtha. He did feel The Enlightened One's magnetic charm, however; for, according to Knight (and who wouldn't believe her?), the compass needle was spinning around madly and they saw "ionization" in the kitchen air.

Ramtha then became Knight's personal tutor for two years, teaching her everything from theology to quantum mechanics. He taught her how to have [out-of-body experiences](#). The experience was so extraordinary she had to dig very deep for a metaphor to try to convey the bliss she felt: *"I felt like....like a fish in the ocean."*

Her big break came when her son, Brandy, developed "an allergic reaction to life." He had to have a few shots but he was allergic to the allergy shots. Fortunately, "the Ram" (as Knight calls her spirit invader) came to the rescue and taught her [therapeutic touch](#). She healed Brandy with [prayer](#) and her touch "in less than a minute," greatly reducing her medical bills. She had performed a [miracle](#) and now nothing would stop her from entering the public arena.

Ramtha the feminist

Perhaps the reason J.Z. Knight is so successful in getting followers and students is that Ramtha is a feminist. (Although, the fact that Knight is quite attractive herself might have something to do with her success.) He recognized that if he appeared in his own masculine body, he would perpetuate the myth that God is male and further contribute to the eternal abuse of women.

That's what he said. So women have been abused by men, and herded by men through religion to perform according to those religious doctrines, and in fact, women were despised by Jehovah. So, he said: "It is important that when the teachings come through, they come through the body of a woman."*

This feminization of God must be pleasing to people who are tired of masculine divinities. According to Knight, Ramtha will help people master their humanity and "open our minds to new frontiers of potential."

See related entries on ["Carlos," channeling](#), [Bridey Murphy](#), and [Edgar Cayce](#).

further reading

reader comments

- [Ramtha's School of Enlightenment](#)
- [Into The Mystic: Ramtha Meets the Scholars](#) by Steve Diamond (these are some scholars!)
- [Medium wins channeling right](#) By Kate Connolly / The Guardian (in Austria Knight has a coyright on Ramtha!)

[Alcock, James E. "Channeling," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\), pp.759-766.](#)

Clark, Nancy, and Nick Gallo. "Do You Believe in Magic - New Light on the New Age," *Family Circle*, Feb. 23, 1993, p. 99. According to Clark and Gallo, an estimated 3,000 people are enrolled in Knight's school, with as many as 1,500 living in the Tacoma area. Five years later she is still going strong.

[Gardner, Martin. *The New Age: Notes of a Fringe Watcher* \(Buffalo, NY: Prometheus Books, 1988\).](#)

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- [holistic medicine](#)
- [Indigo children](#)
- [intuitive healers](#)

- [Jean Houston and the Mystery School](#)
- [joy touch](#)
- [Kabalarian Philosophy](#)
- [Knight, J.Z.](#)
- [Landmark Forum](#)
- [Large Group Awareness Training](#)
- [ley lines](#)
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- [reiki](#)
- [Rolfing](#)
- [tachyons and takionics](#)
- [tarot cards](#)
- [tensegrity](#)
- [therapeutic touch](#)
- [Transcendental Meditation](#)
- [trepanation](#)
- [Wicca](#)

Recommended Reading

[Ankerberg, John and John Weldon. *Encyclopedia of New Age Beliefs* \(Harvest House Publishers, Inc., 1996\).](#)

[Gardner, Martin. *The New Age: Notes of a Fringe Watcher* \(Buffalo, NY: Prometheus Books, 1988\).](#)

[Schick, Jr., Theodore and Lewis Vaughn. *How to Think About Weird Things: Critical Thinking for a New Age*, \(Mountain View, California: Mayfield Publishing Company, 1995\).](#)

Visit the [Skeptic's Bookstore](#) for more books New Age notions.

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In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

22

July 26, 2001. Every time I see a TV ad for the ubiquitous [Miss Cleo](#), the phony [Tarot psychic](#) with the [phony Jamaican accent](#), I wonder why she isn't in prison. [Fraud](#) is illegal, as far I know. False and misleading advertising are illegal, I think. If a fellow goes to prison for falsely claiming he made millions in real estate using his special program and for running TV ads with testimonials from "actors" claiming they too made millions by following the first liar's advice, then [why is Miss Cleo free?](#) It is not even worthwhile to [expose her](#); she should be prosecuted. The phony testimonials from people who have just been told their lovers are unfaithful may be amusing but they're lies intended to get the viewer to call her psychic hotline and spend \$4.99 a minute for "advice." These lines are open 24 hours a day and handled by a coven of [hirelings](#) who are probably making minimum wage. Just because her ads note that her services are "for entertainment purposes only" shouldn't absolve her from charges of fraud. If a gangster put a gun to your ribs and demanded your cash while holding up a sign that says "for entertainment purposes only," you'd still call it armed robbery.

Cleo also uses the [Internet](#) to perpetrate her psychic scam: she sends strangers e-mail claiming she's had a dream about them and that they need to contact her immediately. Or is it Access Resources Services Inc.'s scam? That's the name of the company which promotes Miss Cleo. Access Resources Services, Inc. was located in Delaware last year when they were [sued by the attorney general of Oklahoma](#). The company has also had enough complaints made against them in the state of Michigan to warrant being listed in the dropdown menu of companies listed on the complaints page of the [Michigan Public Services Commission](#). (Eleven complaints have been filed since January 1997.)

Today, Miss Cleo and Access Resources Services Inc. (now based in Florida) were [sued in Missouri](#) by Attorney General Jay Nixon who said: "It doesn't take a crystal ball to realize that ripping off consumers isn't without consequences." Unfortunately, neither one is being charged with the kind of fraud that involves lying about knowing the future from Tarot cards. No, they're being charged with [violating a "no call" law](#) which prohibits a telemarketing company from calling people who have requested to be put on a "no call" list. The state of Missouri claims [Miss Cleo violated this law 94 times](#) and could be fined nearly half a million dollars. They were also sued for customer fraud because customers "were billed for free services" and "the company misrepresented reduced rates and waiver fees." There were other billing irregularities, such as deceased people being billed for calls to Miss Cleo and minors calling in without parental consent. This is not exactly what I have in mind when I envision the police knocking on Miss Cleo's door. Did the customer really get her full three free minutes as promised? Who cares? What has happened to law

enforcement in this country? Are they so afraid of Access Resources Services Inc.'s lawyers that they won't arrest these people for fraud? Or are they afraid that if they go after the psychics they'll be pressured to go after the TV evangelists who extort money from their flocks by phony stories of miracle cures and blessings? Or is the law just [too bloody complicated](#)?

The way I look at it, every day that passes and Miss Cleo is free to advertise her Tarot psychic claims, using her phony testimonials and cheap tricks, the more reasonable it will be for people to think that maybe she's legitimate. After all, if she and her cohorts were really lying about all the stuff they say, wouldn't the police arrest them?

Apparently not.

further reading

- [Failure to deliver psychic services gets woman 4 years in prison](#) Pam Louwagie Star Tribune
- [State sues to unmask alleged TV psychic 'Miss Cleo'](#) By Mitch Lipka Consumer Writer Posted February 13 2002
- [Cleo: Will I win the Lotto?](#) Barr Nobles
- [TV psychic Miss Cleo takes Fifth in deposition](#)

[thanks to Jon Henrik Gilhuus, Chuck Kistler and Joe Littrell]

July 12, 2001. Law enforcement practices are featured almost daily in the mass media, so much so that we often forget how irrational some of these practices are. Lately, congressman Gary Condit's conduct with women has been much in the news. Condit, a co-sponsor of legislation that would encourage posting the Ten Commandments in public buildings, has been accused by a woman and the [father of another woman](#) of trying to intimidate the women into not revealing his affairs with them. A third woman the married Condit had an affair with went missing shortly after their affair ended. What do the police want to do? *Give him a "lie detector" test!* Does the media choke at this request and show the least hint of skepticism about the [polygraph's](#) reliability at detecting lies? No, instead they insinuate that if Condit doesn't submit to a "lie detector" test then he must be guilty of something.

The President of the United States and most members of Congress believe that we can ferret out spies and potential traitors with the polygraph. Does the media cry out that belief in this pseudoscientific device is unjustified? Does it even remind us that *only by lying* can the continued use of this contraption be defended? One exception can be found in the [Skeptical Inquirer](#) (July/August 2001) in an article by Alan P. Zelicoff, a senior scientist in the Center for National Security and Arms Control at [Sandia National Laboratories](#). "Many innocent people have had their lives and careers ruined by thoughtless interrogation initiated during polygraphy," says Zelicoff. And what about all the tax dollars and work hours wasted on these machines and [other questionable devices](#)? Does the government care? Does the mass media care?

Another practice of law enforcement was in the news today as well. This one involves a search for two missing children in the Chicago area. Some minister claimed he had a [psychic](#) vision of their bodies at the bottom of a lagoon, so the police brought in divers and searched the lagoon. They didn't find the little girls. When the police use psychics, do the media howl about how absurd this is? No. They are more likely to rouse up some old story about [Sylvia Browne](#) who seems to have fabricated some whoppers about her crime-solving psychic powers. (One exception is [Brill's Content](#).) Or they make some reference to [Jeane Dixon](#) and her alleged clairvoyance regarding Kennedy's assassination.

The ease with which law enforcement can prove to a jury that just about anybody is guilty of just about anything, especially if the mass media goes along for the ride and the issue feeds on the community's fears, was brought home by [the news](#) that Gerald Amirault could be freed after spending 15 years in prison for child abuse. Amirault worked at the [Fell's Acres daycare center](#) in Massachusetts when the witch hunts for [Satanists who were abusing and murdering children](#) was at its height. Last week, the Massachusetts's state Parole Board unanimously found that the evidence presented (and not presented) at his trial left "real and substantial doubt" as to his guilt. He would not be the first person [falsely charged and imprisoned](#) during the frenzied search for people who were bringing in zebras and giraffes to have sex with children who had had sharp knives inserted into their private orifices after taking airplane rides to the desert to eat other children before returning to the underground tunnels where they were forced to eat feces and drink urine. Did the media wonder about the validity of ["repressed memory therapy,"](#) a hodgepodge of [pseudoscientific](#) techniques allegedly able to root out the truth hidden in children's [subconscious](#) minds? Did they challenge the accuracy of these memories or the methods used to evoke them? Did they wonder what harm might be done to a child, or adult for that matter, if horrible "memories" were implanted by so-called therapists? Did they care whether innocent people would be sent to prison? For the most part, it doesn't seem so.

This same point about convicting innocent people is brought home frequently these days as more and more men are freed from prison when DNA evidence is used to prove they couldn't have committed the crimes they were accused of.

Finally, there is the matter of [police brutality](#) and use of excessive force. I have no idea how much of this goes on, but all it takes is a couple of cases like that of [Amadou Diallo and Abner Louima](#) to set back police/community relations by a century or two. [Diallo](#) is the West African immigrant who, though unarmed, was shot 41 times by the police. [Louima](#) is the Haitian immigrant sodomized by a cop with a broken broomstick in a police station bathroom. [Louima](#) recently settled his lawsuit for \$8.7 million. Here the media does make sure its voice is heard, but how much courage does it take to say it's irrational and immoral to use torture and shoot anything that moves and is black?

July 11, 2001. The current issue of [JAMA](#) (vol 286 no 2) has an article warning patients about to have surgery of the dangers of taking herbs before surgery. I find this interesting since many people take herbs as an alternative to surgery. They think herbs like ginkgo biloba and ginseng can prevent diseases which might require surgery otherwise. The main danger is that the herbs might lead to excessive

bleeding. The authors are not campaigning to eliminate herbs from the diets of millions of Americans, which would be fruitless since the numbers who believe in the magical nutritional and healing power of their herbs is growing exponentially, it seems. Rather, the authors are encouraging patients to inform their doctors of any herbs they might be taking. Many patients are not telling their doctors about their herbal intake, either because they don't realize that herbs contain chemicals that might react with anesthesia or other drugs given before or after surgery or because they don't want their doctor to know that they are hedging their bets with [alternative medicine](#). For purposes of the law, herbs are called "dietary supplements" and are not subject to the same kind of scientific scrutiny as prescription or non-prescription drugs. So, perhaps herb users think of their herbs as "alternative vitamins and minerals."

The concern is not new and was reported on over a year ago by [CNN](#), [ABC](#), and [HealthCentral](#). I reported on this concern last [October](#). [WebMD](#) took up the issue last September. A report on the *JAMA* study can be found at the [CNN](#) site.

The mystical belief in the power of herbs has carried over from consenting adults who should be allowed to ingest whatever useless remedy they wish, to marketing herbs for our [children](#) and our [dogs](#) and [cats](#). Andrea Candee, MH, i.e., "master herbalist", claims to know what herbs are "child-friendly." You can find out what they are if you buy [her book](#). I can understand an Aborigine, with 40,000 years of tradition behind him or her, claiming to be a master herbalist. But I wonder where Candee got her title. The fact is that herbs have pharmacological properties, have been used in [traditional drugs](#) for years, and are being used by millions of self-medicators today. Those who produce and market herbs should do less to make people think their products are safe just because they are [natural](#), and do more to inform people that herbs are drugs. When one's doctor asks what drugs you or your children or pets are taking, one should list not just prescription drugs but herbs as well. Your life or the life of those you love may depend on it.

June 27, 2001. John Derbyshire, a columnist for the [National Review](#), has posted his July 9, 2001, column entitled "Stars Above!" in which he laments the rise of [astrology](#) and ponders what it all means. He begins by noting that [Kepler College](#) is in its second year. We lamented the founding of this college, devoted exclusively to astrology, in this column a couple of years ago. Derbyshire then notes that Mme. Elizabeth Teissier, astrologer to the late French socialist president François Mitterrand, has been granted a Ph.D. from the Sorbonne sociology department for a 900-page thesis on astrology. And India plans to create astrology departments in 24 public universities next year.

Derbyshire does not mince words in his wholesale condemnation of astrology.

It hardly needs saying, I hope, to a readership as intelligent as NR's that astrology is twaddle. An astrologer can tell you nothing useful, though one with a good bedside manner can, of course, cheer you up a bit. The perfect emptiness of astrology has been demonstrated countless times. The Dutch investigator Rob Nanninga, for example, took seven subjects, extracted from them

all the information necessary for an astrologer to make up a full horoscope, and gave that information to 50 astrologers. He then administered to the same seven subjects a set of questions, supplied by the astrologers themselves, about their personality and life experiences. The completed questionnaires were passed to the astrologers, who were then asked to match horoscope to questionnaire. Their failure to do so was total: results were exactly what one would expect from a random pairing of horoscopes with questionnaires. If you don't like that experiment, any number of others have been done, with different methods but identical results — Skeptical Inquirer magazine can supply a full list. Astrology is pure flapdoodle.

Ah, if only intelligence were the key here! I'd love to see what kind of reader response Derbyshire gets.

Derbyshire even goes after [Valerie Vaughan](#), a professional astrologer we ripped into a couple of years ago. She wants astrology in the public schools as part of the multi-cultural curriculum. Derbyshire thinks that the rise of astrology is a symptom of our loss of reverence for reason. Liberals think the election of George W. Bush is a similar symptom. I disagree. Valerie Vaughan is probably as intelligent as Derbyshire or Dubbya and she uses her reason in a way that indicates she has as much respect for reason as either of them does. What she lacks is [skepticism](#) and an understanding of the workings of [science](#), [controlled experiments](#), [confirmation bias](#), [communal reinforcement](#), [the pragmatic fallacy](#) and [self-deception](#). In short, she is ignorant. Such ignorance will not be replaced by knowledge as long as politicians and academics grant degree-giving power and degrees to astrologers.

Somebody should have slapped her up the side of the head and told her to shut up when she first spouted one of her astrological confirmations. Instead of encouraging the girl to delve deeper into the mystical drivel of astrology by either agreeing with her or telling her she might just be right, her friends and family should have stopped her in her tracks and set her straight. On the other hand, her family and friends, and I daresay Mr. Derbyshire himself, probably believe equally ridiculous gibberish about angels and devils, Incarnations and Trinities, and who knows what else. One person's flapdoodle is another's Truth. Our President says he can look into a man's eyes and see his soul. As long as there are enough people who don't whack you silly for saying such stupid things, you are probably going to believe you make sense and continue to be enamored of your own twaddle and flapdoodle.

Just think of how different the world would be if G.W.'s parents had hit him with a cane when he told them that he could see their dog's soul by looking into her eyes. Instead, they probably humored him, thinking that if they didn't he might grow up weird or troubled. Or, perhaps they wondered along with their prodigy if it might not be auntie Hildy in there.

June 27, 2001. "The Thirty Years' War" is the title of an article by [Jerome Groopman](#) in the June 4, 2001, issue of "The New Yorker (52-63)." The article is essentially about the failures of the war against cancer declared by President Richard M. Nixon at the behest (mainly) of Mary Lasker. Despite the frequent headlines over

the years claiming that the cure is here, about all we know for sure today is that the best way to beat cancer is to prevent it from occurring in the first place. Well, we also know that DNA replication has a high error rate and that mutations in genes are probably the main reason cells start dividing rapidly and destructively. (Maybe the [Intelligent Design](#) proponents will explain that little quirk in divine engineering. If a human engineer created something with as high an error rate as DNA replication, we'd fire him.) In 1972, the cancer mortality rate in the U.S. was 163 per 100,000 population. In 1992, it was 172 per 100,000.* Today, it is about 190 per 100,000.

This year alone, more than a million new diagnoses of major cancers will be made and about five hundred and fifty thousand Americans will die of cancer, an average of fifteen hundred a day. [One of every four deaths is due to cancer.]

Why has the war on cancer failed as miserably as the war on drugs? Groopman's view is that we've failed precisely because we declared war. Nixon and his conservative allies were able to see that throwing money at social problems like poverty were doomed to fail. Why couldn't they see that throwing money at medical research was also doomed to fail? If you open the public coffers at point X in time to "solve this problem" you invite leadership from those who are currently using methods and working from theories that are wrong or failures. Researchers spent years looking for the cancer virus and trying cures on patients that were little more than unscientific tortures. Groopman's view is that we'd probably be a lot farther ahead in cancer research had the process not been politicized and centralized. Scientific research might need cooperation but advances in medical research are more likely to be made according to what Groopman thinks might be called "the law of unintended consequences." Even the search for a cancer cure has led to unintended consequences that have been beneficial for other areas of medical health.

By the nineteen-eighties, a huge superstructure had resulted from the government's war on cancer. Some eight billion dollars had been spent. About thirty government-funded comprehensive cancer centers and major regional cooperative treatment groups linked virtually all university hospitals and community-based specialists.

This wasteful approach to research could not have happened without the support of both our elected officials in Washington and the medical establishment. The former are to be forgiven because they are generally ignorant of matters on which they legislate. They like to look good to the voters at home as staunch fighters in the war on crime, indecency, drugs, cancer, whatever. But the medical establishment should have fought against a bureaucracy for basic research. Too much money, big egos,

desire for fame and fortune, the usual list of suspects, can be listed to explain why it did not make it clear to the nation that progress was much more likely to occur if independent basic research was supported and success rewarded. Instead, we have encouraged hype and hoopla.

If you had demanded that the N.I.H. solve the problem of polio not through independent, investigator-driven discovery research but by means of a centrally directed program, the odds are very strong that you would get the very best iron lungs in the world--portable iron lungs, transistorized iron lungs--but you wouldn't get the vaccine that eradicated polio. --[Samuel Broder](#)

Things are changing, however. The current director of the National Cancer Institute, Dr. Richard Klausner, believes it is time to call off the war on cancer, quit claiming that a new miracle cure has just been discovered, and get off that phony pony that claims cancer is a single disease. He thinks of cancer "as an intricate puzzle--one that we currently lack both the knowledge and the tools to solve." He also believes that clues to solving the puzzle could come from any field. "The only people who now are saying we know enough," says Klausner, "are people who don't know enough."

June 23, 2001. The Learning Channel aired "Atlantis Uncovered" last night and it was excellent. [The BBC program](#) debunks the [Atlantis myth](#) (as well as [von Daniken's myth](#)) in what should satisfy most rational people as definitive. The program exposed the selective use of evidence by supporters of theories that ancient Atlanteans or aliens taught primitive peoples how to build monumental structures such as pyramids or how to plant crops and other basic features of civilization. To give plausibility to theories that are universally rejected in academia one must ignore any refuting evidence. For example, anything that would indicate slow and incremental development, rather than sudden and unprecedented work, is ignored. Hundreds of years of experimentation with building large pyramidal structures are ignored by "alternative archaeology." The failures of the Egyptians in their early attempts at pyramid building indicates that they arrived at the Giza level of construction through trial and error. The thousands of underground tombs with many chambers antedates the patterns used in the pyramids. Ignore their history, and you can make a case that the people who build Giza needed help from Atlantis or outer space. Then, of course, there is the problem that the pyramids in Mexico are all step pyramids and had a totally different purpose from those in Egypt. Furthermore, intimate knowledge of Egyptian hieroglyphics will not help you read the pictoglyphs on a Mayan temple. Why would the aliens not teach the Egyptians and the Meso-Americans the same form of writing or give them the same plans and purpose for their buildings?

The evidence is overwhelming that things like agriculture, writing, architecture, etc., developed independently in several parts of the world. The evidence is underwhelming that a single source, either earthly or extraterrestrial, led to the various ancient civilizations.

However, after an hour of debunking myths and providing empirical evidence for the view that ancient peoples created their own civilizations, The Learning Channel aired a program called "Atlantis in the Andes." A review of this program may be found in [Mass Media Bunk](#).

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reader comments:

Atlantis

28 Feb 1997

Here is the real story of Atlantis.

It is the name of a lost continent, taken from one of Plato's myths. Inhabitants of Atlantis - called Atlanteans - created an extraordinary advanced civilization. Unfortunately, they were not able to transmit their knowledge to us. Maybe, they did not know how, or it maybe they were forbidden by cosmic civilizations which were in contact with them.

Atlantis disappeared either as a consequence of nuclear war or due to a collision with the Moon, which fortunately sprang back away from the Earth. A part of the survivors settled the city of Atlanta, which carries the name up to modern times. Skeptical geologists are not enthusiasts for the Atlantis idea, and they even stupidly argue for the fact that the whole oceanic bottom is covered by old sediments, and that nothing so large has sunk into the sea over the last several thousand years.

Personally I suggest that the surviving Atlanteans, as soon as they made sure of the irreversible sinking of their continent, spread old sediments anywhere they considered it was suitable.

Atlantis is also connected with the dawning of alchemy and the Hermetic sciences; esotericism has its roots there, as well.

**Vojtech Mornstein Associate Professor of Biophysics Medical Faculty,
Masaryk University Jostova 10, 662 43 Brno, Czech Republic**

reply: Professor Mornstein tells me has a book coming out on this and other subjects. He claims it is satire, but I'm not sure!

28 Aug 1997

I am fifty, and have been studying Atlantis and related historical violations of the doctrine of uniform cultural evolution, on and off, for most of my life now. Just a few thoughts on Atlantis in particular:

Donnelly's contribution to the discussion is that he is one of the few authors on the subject to have actually published a decent translation of what Plato

actually said, something that few modern writers have bothered to read.

First of all, since there are no other references to "Atlantis," per se, in what survives of classical Greek literature, it must be assumed that the word is a back formation from "Atlantes," the inhabitants of the Atlas mountain range in northwestern Africa. Robert Graves figured this much out.

The reference to "beyond the pillars of Herakles" is the ancient Greek way of describing what one found upon sailing past Gibraltar while hugging the coast of North Africa. I remind you that the Greek definition of "island" paralleled that of their "continent." To the Greeks, Europe was a continent. West Africa was an island, especially since it was cut off from the rest of what we now call "Africa" by a river that ran south from the Atlas mountains and then west to what is now the Western Sahara. This now dry river was explored by Byron Khun de Prorok in the 1920's.

The extensive water works described by Plato were, of course, controlled by a dam upriver from the plain. Whatever tectonic event led to the destruction, it caused the collapse of the dam and Plato's description of a "sea of mud."

reply: You don't think you are speculating a bit here?

Plato's chronology is a bit screwy. What we seem to be looking at is that two thousand year, or so, period from about 5000 to 3000 BC that preceded the rise of the great old world civilizations, when global temperatures were warmer than they are now, and northern Africa was rainy and fertile.

reply: His "chronology" is 'screwy' only if you assume he is trying to provide such.

As for whether there was any kind of "high technology" in this pre-classical civilization, I am not at present willing to speculate, except to suggest that if we lay this two thousand year period upon our own, current civilization, we are left with the following:

Starting from about 500 BC, the founding of the school of Pythagoras in southern Italy, and ignoring the period of the Dark Ages, a period of about 800 years, we are left with a technological level equivalent to that of our own civilization 300 hundred years from now.

reply: You must be using some New Math here. I don't follow your argument.

Even you must admit: That there is no archaeological evidence for the existence of this civilization is not surprising. It is buried under the Sahara Desert. And, since no one recognizes its existence, it will never be found, save by accident.

**reply: Ah! Now I see. I can't see because it is all buried and can't be found.
Thanks for the revelation.**

Which is not to say that there is anything wrong with maintaining a skeptical attitude. Except that sometimes you tend to miss the whole point.

Steve Franklin

reply: I fear this must be one of those times. Maybe someday I can dig my way to the truth of the matter.



[Atlantis](#)

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chakras

According to [Tantric philosophy](#) and Yoga, chakras are points of [energy](#) in the [astral body](#). There are [seven primary chakras](#), which are associated with various parts of the body, emotions, desires, thoughts, powers, and health.* New Age gurus think chakras have [colors](#) and give rise to [auras](#), which reveal one's spiritual and physical health, as well as one's [karma](#). The alleged energy of the chakras is not scientifically measurable, however, and is at best a metaphysical chimera and at worst an anatomical falsehood.

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Last updated 01/08/03



[cellular memory](#)

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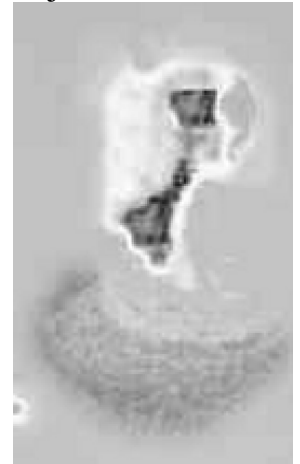
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Kirlian "photography"

In 1939, Semyon Kirlian discovered by accident that if an object on a photographic plate is subjected to a high-voltage electric field, an image is created on the plate. The image looks like a colored halo or coronal discharge. This image is said to be a physical manifestation of the spiritual aura or "life force" which allegedly surrounds each living thing.



Allegedly, this special method of "photographing" objects is a gateway to the paranormal world of [auras](#).

Actually, what is recorded is due to quite natural phenomena such as pressure, electrical grounding, humidity and temperature. Changes in moisture (which may reflect changes in emotions), barometric pressure, and voltage, among other things, will produce different 'auras'.

Living things...are moist. When the electricity enters the living object, it produces an area of gas ionization around the photographed object, assuming moisture is present on the object. This moisture is transferred from the subject to the emulsion surface of the photographic film and causes an alternation of the electric charge pattern on the film. If a photograph is taken in a vacuum, where no ionized gas is present, no Kirlian image appears. If the Kirlian image were due to some paranormal fundamental living energy field, it should not disappear in a simple vacuum (Hines).

There have even been claims of Kirlian photography being able to capture "phantom limbs," e.g., when a leaf is placed on the plate and then torn in half and "photographed," the whole leaf shows up in the picture. This is not due to paranormal forces, however, but to fraud or to residues left from the initial impression of the whole leaf.



[Parapsychologist](#) Thelma Moss popularized Kirlian photography as a diagnostic medical tool with her books *The Body Electric* (1979) and *The Probability of the Impossible* (1983). She was convinced that the Kirlian process was an open door to the "bioenergy" of the [astral body](#). Moss came to UCLA in mid-life and earned a

doctorate in psychology. She experimented with and praised the effects of LSD and was in and out of therapy for a variety of psychological problems, but managed to overcome her personal travails and become a professor at UCLA's Neuropsychiatric Institute. Her studies focused on paranormal

topics, such as [auras](#), [levitation](#) and [ghosts](#). One of her favorite subjects at UCLA was [Uri Geller](#), whom she "photographed" several times. She even made several trips to the Soviet Union to consult with her paranormal colleagues. Moss died in 1997 at the age of 78.

Moss paved the way for other parapsychologists to speculate that Kirlian "photography" was parapsychology's Rosetta stone. They would now be able to understand such things as [acupuncture](#), [chi](#), [orgone energy](#), [telepathy](#), etc., as well as diagnose and cure whatever ails us. For example, [Bio-Electrography](#) claims to be

...a method of investigation for biological objects, based on the interpretation of the corona-discharge image obtained during exposure to a high-frequency, high-voltage electromagnetic field which is recorded either on photopaper or by modern video recording equipment. Its main use is as a fast, inexpensive and relatively non-invasive means for the diagnostic evaluation of physiological and psychological states.

The reliability of diagnosing illnesses by photographing auras is not very high, however. Bio-Electrography should not be confused with [Esogetic Colorpuncture](#), [Peter Mandel's](#) therapy, which unites [acupuncture](#) and Kirlian photography "to detect energy imbalances."

None of these Kirlian methods of diagnosis should be confused with other types of medical photography, e.g., [roentgen-ray computed tomography](#), [magnetic resonance imaging](#), [single photon/positron emission computed tomography](#) and other useful types of medical imaging, none of which have anything to do with [auras](#).

further reading

[reader comments](#)

- [Aura Photography](#)
- [Human Energy Fields?](#)
- [Kirlian Photography](#) - The New England Skeptical Society
- [Electron discharge photography](#)
- [Kirlian Photography](#)
- [Thelma Moss - Apostle of LSD](#)
- [Can Kirlian Photography Detect Diseases?](#) by George Nava True II
- [Andy's \(Le Magicien\) Kirlian Photography Page](#)

[Abell, George O. and Barry Singer \(eds.\) *Science And Paranormal* \(New York: Scribner, 1981\).](#)

[Hines, Terence. *Pseudoscience and the Paranormal*\(Buffalo, NY: Prometheus Books, 1990\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books,1982\),](#)

[Watkins, Arleen J. and William S. Bickel. "A Study of the Kirlean Effect," in *The Hundredth Monkey and Other Paradigms of the Paranormal*,ed. Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\), pp. 209-221.](#)

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[Big Bucks for Psychics - Will Any Medium Win the \\$1 Million Challenge? By Buck Wolf, ABC news, July 30, 2002](#)

[Skeptic: Magic is just fakery By GREG SMITH Norwich Bulletin](#)

[Debunking Seeing Without Sight A Russian girl accepts James Randi's \\$1 million challenge to prove she has paranormal powers](#)

The Randi Paranormal Challenge

James Randi, a.k.a. The Amazing Randi, magician and author of numerous works skeptical of paranormal, supernatural and occult claims, has had for many years a standing offer of \$10,000 to anyone who can prove he or she has paranormal powers. Recently, due to a sponsor gift, the prize has increased to \$1,000,000 and is now offered through the [James Randi Educational Foundation](#). The applicant must state clearly what the claim is, and the applicant and the Foundation must agree on test parameters, which will be worked out between the two. Randi's rules are little more than what any reasonable scientist would require

If you are a mental [spoon bender](#), you can't use your own spoons. If you are going to see [auras](#), you will have to do so under [controlled conditions](#). If you are going to do some [remote viewing](#), you will not be given credit for coming close in some vague way. If you are going to demonstrate your [dowsing](#) powers, be prepared to be tested under controlled conditions. If you are going to do [psychic surgery](#), expect to have cameras watching your every move.

For more information on the [James Randi Paranormal Challenge](#) see www.randi.org, or send e-mail to randi@randi.org or snail mail to

JREF
201 S.E. 12th St (E. Davie Blvd)
Fort Lauderdale, FL 33316-1815
U.S.A.

After collecting the million, successful psychics should contact [B. Premanand of the Indian Skeptic](#), who will pay 100,000 rupees (ca. \$2,300) "to any person or persons who will demonstrate any psychic, supernatural of paranormal ability of any kind under satisfactory observing conditions." Also, the [Australian Skeptics](#) will throw in an additional \$100,000 (Australian), \$80,000 for the psychic and \$20,000 for anyone "who nominates a person who successfully completes the Australian Skeptics Challenge." If you nominate yourself, and are successful, you get the whole hundred grand.

further reading

[reader comments](#)

Books by James Randi

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

[Randi, James. *The Faith Healers* \(Buffalo, N.Y.: Prometheus Books, 1987\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

[Randi, James. *The Mask of Nostradamus* \(New York: Scribner, 1990\).](#)

[Randi, James. *The Truth about Uri Geller*, \(Buffalo, NY: Prometheus Books, 1982\).](#)

- [Australian journalist Paul Willis of the *CorreX Files* interviews Randi](#)
(The site is now known as the **Correx Archives** due to legal threats from 20th Century Fox Alien Network for unauthorized usurpation of a bona fide trademark.)

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[Ramtha](#)

[reflexology](#)



[SkepDic.com](#)

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reader comments:

auras

06 Jan 2000

It always amazes me, having taught physics for many years, how the critics of the paranormal, including yourself, never use real science when critiquing it. In addition, very judgmental statements concerning those who engage in paranormal activities are also included, as do you in your web article.

Certainly good science and objectivity of descriptions are the minimum that one should expect from the self proclaimed savants of science. If the major proof that auras can not be seen is the inappropriate flawed test instituted by the Amazing Randi, then you had better reject the belief that atoms exist as well.

reply: The major proof that auras can't be seen is that ordinarily people don't see them. The difference between believing in atoms and believing in auras is that nobody claims to be able to see atoms with the naked eye. As a physicist you know how atoms are detected, but there is no similar detection of auras by scientific equipment that I am aware of.

The photographic evidence for the existence of atoms is no more or less valid than Kirlian photography of the human energy field. In both instances the interaction of light with another field of energy at a different frequency is recorded on a photographic plate. What one sees in the developed print is the resultant interaction.

reply: The difference is that Kirlian photography can be better explained in terms of known electromagnetic forces than in terms of "human energy fields," an expression that is without scientific meaning.

In order to see an aura at the present level of human capability it is necessary for light to be passing through the vital and subtle energy field that surrounds the human body. Randi's staged drama did not meet this requirement. The same that is required for photographing atoms.

The fact that the aura reader agreed to an inappropriate experiment does not make it valid science. Rather it demonstrates once again the human egos desire for attention and publicity.

reply: I suggest that at "the present level of human capability" the "vital and subtle energy field that surrounds the human body" is a figment of your imagination. Randi got the aura reader to agree to a fair test of the

ability to read auras. If you can read auras with a light passing through them, then contact Randi, set up an appointment, demonstrate your powers and [collect your million dollars](#).

For publicity purposes it is in the self interest of James Randi not to pay out his \$10,000. The mere fact that his criteria for so doing are based on: 1) His structuring the test; 2) His judging the result; based on 3) His criteria automatically excludes him as an objective observer. Were he to put up his money in escrow to be controlled by a board of real scientists both skeptical and from within the discipline being examined then his offer would begin to have some validity.

reply: He's already done most of what you ask and the prize has been upped to \$1 million for a couple of years now.

Having developed many electron micro photographs of atomic structure as well as black and white Kirilian photography both utilising the same process of registering the interaction of two fields of vibrational energy, for me auras are just as real as atoms.

**Jerome Whitney
London, England**

reply: Maybe you should clarify what you mean by an "aura", since I don't think most other physicists would agree that auras are just as real as atoms.

I've practiced psychometry and the like for quite a while but I don't believe that I have any special 'power'. More or less, I just have what we all do, a psyche. One I've learned to manipulate.

Anyhow, I've seen auras, not in full color and only about two inches or so, I asked a friend if he could see it too, and he could.

What I'm trying to say is that anyone could probably see auras if they tried just not as well as the more talented ones. Thank you.

--Stephen Mosher

reply: I'm still trying, without success.

22 Aug 1996

I find the skeptic a curious bird indeed. In many cases it appears we are

merely playing a word game. We do not have "auras", ahh but we do have "electromagnetic fields." Now the difference just seems to be simply a matter of words. A person's health is very likely to be reflected either way.

reply: The difference between 'aura' and 'electromagnetic field' is just a matter of words but the difference between auras and electromagnetic fields is as great as the difference between lightning and lightning bugs.

What makes it likely that electromagnetic fields are an indication of a person's health? Do you know this a priori? If so, you are quite special; for this is clearly an empirical matter.

And speaking of electromagnetism anyway. Just what is it? In truth we really don't have a clue do we? It appears that the more physicists play with the subject, the more confused they become. So what is an electron anyway? Matter? Energy? And just where are they? Why they go around the nucleus of an atom -- well they don't really go around it -- they only have a tendency to be in one particular place at a particular time. Of course they are really never there, especially at any particular time because time doesn't really exist as we imagine it to.

reply: However confused scientists may be regarding electromagnetism, matter, energy, etc., has no bearing on auras. In any case, I don't think physicist are as confused as you think they are.

I find this all ironic and amusing. Science is doing a better and better job understanding "How" things work. We are better and better able to use this knowledge and technology (for better or worse). But we haven't moved a bit closer to understanding what a "force" or "energy" really is -- tis still an utter "Mystery." Oh my gosh! So auras or electromagnetic field -- call it whatever you choose. The way I look at it every new discovery science does make only confirms that this universe is spectacular and magical.

reply: I agree.

And as for god, is not the question, by its definition beyond the realm of science. I mean we cannot exactly run a controlled experiment on this subject can we. I glanced over your section on "atheism" and noted that you limited your definition of god to the more or less traditional Judeo-Christian-Islamic concept. That seems rather unscientific don't you think? That is, if we could prove that there is not a great grey bearded patriarch living in the sky then of course there is no god. What of other possibilities?

reply: It may be narrow, but I don't think there is anything scientific or unscientific about it. I realize there are other possibilities, but the Judeo-Christian God is the major one in this part of the world.

Personally I don't buy the old creator theory, but I can't disprove it, nor am I inclined to spend too much energy trying to. So in the beginning there was the "Big-Bang" --- so what banged?

Michael A Torre

reply: The Unbanged Banger, of course!

03 Jan 1997

Thank you for a wonderful website, it's one of my favourites. I especially enjoy reading the readers' comments, many of which are quite funny, belying an almost unbelievable ignorance. My only complaint: you often seem to let these ignoramus off the hook far too easily. What I mean is that, while you rightly point out flaws in their logic, you often leave unchecked the farfetched, bizarre, and usually plain wrong claims they make from modern science. The reason I bring this up is that I believe ignorance and faulty understanding of scientific principles (in other words: 'science illiteracy') is one of the main forces perpetuating belief in pseudoscience. Correcting conceptual errors from your correspondents should, therefore, be one of your priorities, in my opinion. But, perhaps, that's in part what the reader comments are for?

A case in point is one Michael Torre who, while writing on auras, makes some rather strange observations regarding the state of knowledge in modern physics. Now, I am not a physicist, and don't know terribly much about these things, but neither, apparently, does Mr. Torre.

On electromagnetism, Mr. Torre has this to say: "Just what is it? In truth we really don't have a clue do we?" This is dead wrong, we have several clues. Gathering clues is what science is all about. What Mr. Torre is probably trying to say is that he doesn't understand the clues. Well, join the club. I don't understand very much about electromagnetism either, but I do understand this much: electromagnetism is not an object. Mr. Torre seems to be under the mistaken impression that in order to 'have a clue' as to the nature of natural phenomena we have to be able to describe them fully in everyday terms. A moment's thought, however, will convince Mr. Torre that this is not invariably the case. In fact, most phenomena outside our everyday world of tangible objects, including electromagnetism, can only be described in terms of models and approximations. That is by no means equivalent to saying these phenomena are not understood. In fact, electromagnetism is so well understood that we are able to put it to practical use in a number of ways, as you pointed out in your reply. Much of Mr. Torre's confusion stems, I think, from the fact that physicists, electrical engineers, and others interested in electromagnetism have at their disposal several models for explaining electromagnetism, some of which may appear contradictory at first glance. That does not imply that they disagree, to any significant extent, on 'what'

electromagnetism 'really is'. They don't. What model they choose to work with is simply a matter of convenience, determined, largely, by how deep an understanding they need have of the phenomenon to carry out their project (the 'deeper' the understanding, the more complex the model, is the general rule of thumb).

Mr. Torre goes on to say about electrons: " they only have a tendency to be in one particular place at a particular time". Now, that is precisely what they don't do. I had the impression that Mr. Torre was trying to make some sort of profound statement based on Heisenberg's uncertainty principle, which is very popular among the True Believers, and, quite typically of these strange creatures, has got it all backwards. One of the implications of Heisenberg's principle, if I remember my high school physics correctly, is that the electron (and other subatomic particles) doesn't have the property of position, it simply can't 'be in one particular place at a particular time'. This marvelous property (or lack thereof) of the electron is so well understood (in spite of Mr. Torre's claim that it really isn't) that it is put to practical use in such marvelous devices as the Scanning Tunneling Electron Microscope.

I wont belabor any more of Mr. Torre's numerous misconceptions, tempting as it is, but will close this letter by saying that if Mr. Torre and his ilk want to make useful contributions to discussions on scientific, or, for that matter, pseudoscientific, matters, they should bother to acquaint themselves with the subject. There are numerous excellent 'popular science' books on the market which provide a far more exciting read, resplendent with mystery and awe, than any pseudoscientific or mystical claptrap.

Oddur Vilhelmsson

P.S. Sorry about my broken English, but I am a foreigner.

reply: I'll make it my New Year's resolution to be more hardnosed and not so benign.



[Auras](#)

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automatic writing (trance writing)

Automatic writing is writing allegedly directed by a [spirit](#) or by the [unconscious mind](#). It is sometimes called "trance" writing because it is done quickly and without judgment, writing whatever comes to mind, "without consciousness," as if in a trance. It is believed that this allows one to tap into the subconscious mind where "the true self" dwells. Uninhibited by the conscious mind, deep and mystical thoughts can be accessed. Trance writing is also used by [some psychotherapists](#) who think it is a quick way to release [repressed memories](#). There is no scientific evidence that trance writing has any therapeutic value.

Advocates of automatic writing claim that the process allows one to access other intelligences and entities for information and guidance; to recall previously irretrievable data from the subconscious mind; and to unleash spiritual energy for personal growth and revelation. According to psychic [Ellie Crystal](#), entities from beyond are constantly trying to communicate with us. Apparently, we all have the potential to be as [clairaudient](#) as [James Van Praagh](#).

One 19th century [medium](#), H  l  ne Smith, specialized in automatic writing and even invented a Martian alphabet to convey messages from Mars to her clients in the Martian language, which apparently had a strong resemblance to Ms. Smith's native language French (Randi 1995, 22).

Modern skeptics consider automatic writing to be little more than a parlor game, although sometimes useful for self-discovery and for getting started on a writing project. It is likely that many unconscious desires and ideas are expressed in automatic writing, but they are unlikely to be any more profound than one's conscious notions. Personal growth may be enhanced by automatic writing if it is evaluated reflectively and with intelligence. By itself, automatic writing is no more likely to produce self-growth or worthwhile revelation than any other human activity. Some people have even had such [bad experiences doing automatic writing](#) that they are convinced that [Satan](#) is behind it. For some minds, apparently it is better not to know what's lurking in the cellar. Others may be disappointed to find that the cellar is empty.

See related entries on [channeling](#), [medium](#), [ouija board](#), [repressed memory therapy](#), and [spiritualism](#).

further reading

- [Does Automatic Writing Come From Spirit? by Andrew Fitzherbert](#)
- [Sunny Welles and automatic writing](#) (A donation of \$50 is requested for the first half hour of the session; \$1 per minute thereafter. Most credit cards accepted.)
- [Edain McCoy's step-by-step manual for automatic writing](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\),](#)

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repressed memory

A repressed memory is the memory of a traumatic event unconsciously retained in the mind, where it is said to adversely affect conscious thought, desire, and action.

It is common to *consciously* repress unpleasant experiences. Many psychologists believe that *unconscious* repression of traumatic experiences such as sexual abuse or rape is a defense mechanism which backfires. The unpleasant experience is forgotten but not forgiven. It lurks beneath consciousness and allegedly causes a myriad of psychological and physical problems from bulimia to insomnia to suicide.

The theory of *unconsciously* repressing the memory of traumatic experiences is controversial. There is little scientific evidence to support either the notion that traumatic experiences are typically unconsciously repressed or that unconscious memories of traumatic events are significant causal factors in physical or mental illness. Most people do not forget traumatic experiences unless they are rendered unconscious at the time of the experience. No one has identified a single case where a specific traumatic experience in childhood was repressed and the *repressed memory* of the event, rather than the event itself, caused a specific psychiatric or physical disorder in adulthood.

The strength of the scientific evidence for repression depends on exactly how the term is defined. When defined narrowly as intentional suppression of an experience, there is little reason to doubt that it exists. But when we talk about a repression mechanism that operates unconsciously and defensively to block out traumatic experiences, the picture becomes considerably murkier.

Evidence concerning memory for real-life traumas in children and adults indicates that these events--such as the Chowchilla kidnappings, the sniper killing at an elementary school, or the collapse of skywalks at a Kansas City hotel--are generally well remembered....complete amnesia for these terrifying episodes is virtually nonexistent (Schacter 1996, 256).

Psychologist [Lenore Terr](#), a defender of [repressed memory therapy](#), argues that repression occurs for *repeated* or *multiple* traumas, such as a repeatedly abused child. Schacter notes that "hundreds of studies have shown that repetition of information leads to improved memory, not loss of memory, for that information." He also notes that people who have experienced repeated

traumas in war, even children, generally remember their experiences. A person who suffers a great trauma often finds that she cannot get the event out of her mind or dreams. Terr's theory is that the child becomes practiced at repression to banish the awful events from awareness, and forgetting might aid in the child's survival. Her [dissociative](#) theory, however, is based on speculation rather than scientific evidence.

Most psychologists accept as fact that it is quite common to *consciously* repress unpleasant experiences, even sexual abuse, and to spontaneously remember such events long afterward. Most of the controversy centers around recovered memories during [repressed memory therapy](#) (RMT). Critics of RMT maintain that many therapists are not helping patients recover repressed memories, but are suggesting and planting [false memories](#) of [alien abduction](#), sexual abuse, and [satanic rituals](#).

See related entries on [dianetics](#), [hypnosis](#), [false memory](#), [mind](#), [multiple personality disorder](#), [repressed memory](#), [repressed memory therapy](#), and [the unconscious](#).

further reading

- [Twelve Myths about False Memories](#)
- [Truth or invention: exploring the repressed memory syndrome; excerpt from *The Myth of Repressed Memory* by Elizabeth Loftus and Katherine Ketcham](#)
- [Creating False Memories](#) by Elizabeth Loftus
- [The Reality of Repressed Memories](#) by Elizabeth F. Loftus
- ["Recovered Memories of Abuse: Assessment, Therapy, Forensics,"](#) By Kenneth S. Pope, Ph.D., ABPP and Laura S. Brown, Ph.D., ABPP
- ["Recovered Memories of Sexual Abuse: Scientific Research & Scholarly Resources"](#) By Jim Hopper, M.A.
- [Viruses of the Mind](#) by Richard Dawkins
- [Illinois to punish psychiatrist who convinced patient she was flesh-eater](#)

[Ashcraft, Mark H. *Human Memory and Cognition* \(Addison-Wesley Pub Co., 1994\).](#)

[Baddeley, Alan D. *Human Memory: Theory and Practice* \(Allyn & Bacon, 1998\).](#)

[Baker, Robert A. *Hidden Memories: Voices and Visions From Within* \(Buffalo, N.Y. : Prometheus Books, 1992\).](#)

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[Loftus, Elizabeth. *The Myth of Repressed Memory* \(New York: St. Martin's, 1994\).](#)

[Schacter, Daniel L., editor, *Memory Distortion: How Minds, Brains, and Societies Reconstruct the Past* \(Harvard University Press, 1997\).](#)

[Schacter, Daniel L. *Searching for Memory - the brain, the mind, and the past* \(New York: Basic Books, 1996\).](#)

[Schacter, Daniel L. *The Seven Sins of Memory : How the Mind Forgets and Remembers* \(Houghton Mifflin Co., 2001\).](#)

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[remote viewing](#)

[repressed memory therapy](#)



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clairaudience

Clairaudience is an alleged [psychic](#) ability to hear things that are beyond the range of the ordinary power of hearing, such as voices or messages from the dead. Alleged clairaudients such as [James Van Praagh](#) and John Edward consider themselves 'grief counselors'. They believe they give comfort to the living by providing "messages from the dead," even if the messages are sometimes absurd ("Someone's nickname is Miss Piggy" or "Your dog wishes you hadn't given away his favorite dish").

further reading

[reader comments](#)

[*The Hundredth Monkey and Other Paradigms of the Paranormal*, edited by Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\).](#)

[*Science Confronts the Paranormal*, edited by Kendrick Frazier. \(Buffalo, N.Y.: Prometheus Books, 1986\).](#)

[*A Skeptic's Handbook of Parapsychology*, edited by Paul Kurtz. \(Buffalo, N.Y.: Prometheus Books, 1985\).](#)

[Stein, Gordon. "Spiritualism," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\), especially chapter 13 "Put Up or Shut Up" where he gives accounts of tests done on several psychics who have tried to collect the \\$10,000 Randi used to offer to anyone who can demonstrate any psychic power. So far, no one has collected, even though the offer is now \\$1,000,000!](#)



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Shooting crap

Alleged psychic John Edward actually gambles on hope and basic laws of statistics. By Shari Waxman Salon.com 6/13/02

'Crossing Over' live is only medium cool June 10, 2002 BY JEFF VRABEL

Van Praagh Lives With Dead -

miniseries with Ted Danson playing Van Praagh

According to a Gallup poll, belief that some people can hear communications from the dead has increased from 18% to 26% over the past decade.

James Van Praagh

"...we [psychics] are here to heal people and to help people grow...skeptics...they're just here to destroy people. They're not here to encourage people, to enlighten people. They're here to destroy people."

--James Van Praagh on "Larry King Live," March 6, 2001

"Aren't you a bit surprised that the only message that the dead seem to be able to give to us is someone had a nickname Miss Piggy? And they can only tell us that, you know, I had a heart condition?...I want to hear just one of the psychics today tell me when is there going to be the next bus bombing in Tel Aviv so we can avoid going on that bus."

--Rabbi Shmuley Boteach, on "Larry King Live," March 6, 2001

"Death is a part of life, and pretending that the dead are gathering in a television studio in New York to talk twaddle with a former ballroom-dance instructor is an insult to the intelligence and humanity of the living." --[Michael Shermer](#)

James Van Praagh is a self-proclaimed [medium](#). He claims that he has a gift which allows him to hear messages from just about anyone, provided he or she is dead. According to Van Praagh, all the billions and billions and billions of dead people are just waiting for someone to give him their names. That's all it takes. Give Van Praagh a name, any name, and he will claim that some dead person going by that name is contacting him in words, fragments of sentences, or that he can feel their presence in a specific location. He has appeared on "Larry King Live," where he claimed he could feel the presence of Larry's dead parents. He even indicated where in the room this "presence" was coming from. He took phone calls on the air and, once given a name, started telling the audience what he was "hearing" or "feeling". Van Praagh plays a kind of twenty-questions game with his audience. He goes fishing, rapidly casting his baited questions one after the other until he gets a bite. Then he reels the fish in. Sometimes he falters, but most of the fish don't get away. He just rebaits and goes after the fish again until he rehooks. The fish love it. They reward Van Praagh's hard work by giving him positive feedback. This makes it appear to some that he is being contacted by spirits who are telling him that being dead is good, that they love those they left behind, and that they are sorry and forgive them



everything.

[Michael Shermer](#) of *Skeptic* magazine calls Van Praagh "the master of [cold-reading](#) in the psychic world." Sociologist and student of [anomalies](#), Marcello Truzzi of Eastern Michigan University, is less charitable. Truzzi has studied characters like Van Praagh for more than 35 years and he describes Van Praagh's demonstrations as "extremely unimpressive." ("A Spirited Debate," Dru Sefton, Knight Ridder News Service, *The San Diego Union-Tribune*, July 10, 1998, p. E1.) Truzzi says that most of what Van Praagh gives out is "twaddle," but it is good twaddle since "what people want is comfort, guilt assuagement. And they get that: Your parents love you; they forgive you; they look forward to seeing you; it's not your fault they're dead."

In *Why People Believe Weird Things* Shermer describes Van Praagh's success and how he wowed audiences on NBC's New Age talk show *The Other Side*. Shermer also tells us how he debunked Van Praagh on *Unsolved Mysteries*. Yet, no one in the audience was sympathetic to Shermer. One woman even told him that his behavior was "inappropriate" because he was destroying people's hopes in their time of grief.

[Van Praagh](#) has books out with can't-miss titles: *Talking to Heaven* and *Reaching to Heaven*, as well as *Healing Grief*. (*Talking to God* and *Talking to Angels* have already been taken.) His website keeps us informed of his books, tapes (e.g., *Develop Your Psychic-Self*), upcoming products (e.g., a series of meditation tapes), [tours and appearances](#). Van Praagh's success will continue as long as he never, never tells a mark that his parents forgive him for torturing them while they were alive or that it's time to admit to the murder. There is little chance of that happening, however. In an interview with Dru Sefton, Van Praagh states that "there is no death, there is only life....every person is psychic or intuitive to a degree," and most spirits end up in heaven (Sefton 1998). These claims seem to be based on nothing more than the belief that this is what many people want to hear.

Another devotee of Van Praagh is Charles Grodin, whose talk show on CNBC was cancelled shortly after Van Praagh's second appearance. Grodin demonstrated how open-minded, gullible, and devoted to his dead mother he is, as he fawned over the man who talks to heaven. Van Praagh's performance on Grodin's show was less than heavenly, but it was enough to satisfy Grodin and at least one couple in the audience who seemed to believe that their dead daughter was talking to Van Praagh. The only skepticism shown by Grodin was in wondering whether Van Praagh wasn't really reading the minds of the audience and the callers, rather than getting his messages from "the other side". The only person on the show who stated her doubts about the authenticity of Van Praagh's contact was a woman who lost a daughter to murder by terrorist Timothy McVeigh in the Oklahoma City bombing. She stated that nothing Van Praagh said rang true about her daughter except some generalities. The woman also claimed that her daughter communicates to her

directly.

When Van Praagh can't get a good bite, he reminds his audience that sometimes the message is in fragments, sometimes he doesn't understand it, sometimes he misinterprets it, etc. If he's wrong, don't blame him since he never claimed to be perfect. Van Praagh seemed particularly inept on the Grodin show. He was not very artful. He used his usual bait: questions about girls and grandmothers, changes in the home, unresolved feelings, etc. He claimed to get messages about the usual stuff: angels, cancer, the heart, newspapers. What saves him much of the time is [shotgunning](#) which ends with the ambiguous question "am I right?" and the client saying "yes," though we have no idea what the "yes" is in response to.

Van Praagh's shows are unimpressive to a skeptic, but to someone like Charles Grodin, who obviously is still deeply grieving his mother's death, he is a saint. Grodin practically asked for Van Praagh's blessing as he thanked him for his wonderful work. Hopefully, some in the audience were left wondering why there wasn't more skepticism shown.

Currently, there is a three-year wait for a private session with Van Praagh. However, there may be some dissatisfaction in Heaven, as several others on earth have got the message are now getting messages from the dead, too.



[George Anderson](#) (*Lessons from the Light*), a former switchboard operator featured on CBS news and an [ABC special](#), says the dead talk to him all the time. [John Edward](#)

established himself as the first [clairaudient](#) to have his own talk-to-the-dead show: "Crossing Over with [John Edward](#)" on the Sci Fi Channel. Edward has been exposed as a fraud by [James Randi](#) [*Skeptic*, v. 8, no. 3] and [Leon Jaroff](#) [*Time*, March 5, 2001], to no avail. He may be a fraud, but he is an attractive and impressive one. Edward's show is now syndicated, his popularity is expanding almost as fast as the universe, and he has joined Xena the Warrior Princess and Jerry Springer on the [USA Network](#).

See related entries on [channeling](#), [clairaudience](#), [cold reading](#), [electronic voice phenomenon](#), [medium](#), [mentalists](#), [ouija board](#), [psychic](#), [Ramtha](#), [shotgunning](#), and [spiritualism](#).

further reading

[reader comments](#)

- [Deconstructing the Dead "Crossing over" to expose the tricks of popular spirit mediums](#) by Michael Shermer, *Scientific American*, Aug. 1, 2001
- [Talking to Heaven? Like Hell! The Spirited Trickery of James Van Praagh](#) by D. Trull
- [Talking to the Living Loved Ones of the Dearly Departed](#) by Gary P. Posner
- [Review of Psychic Medium Van Praagh on CNN's Larry King Live](#) by Joe Nickell
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[According to a Gallup poll, belief in channeling has increased from 11% to 15% over the past decade.](#)

channeling

Channeling is a process whereby an individual (the "channeler") claims to have been invaded by a spirit entity which speaks through the channeler. The channeling craze began in earnest in 1972 with the publication of *Seth Speaks* by Jane Roberts and Robert Butts, her husband. They claim that "Seth," a very wise "unseen entity," communicated his wisdom to Jane, who dictated to Butts while she was in a trance. Though Roberts, a somewhat accomplished poet, was obviously very literate and widely read in many religious and occult traditions (including [Jung](#)), her advocates portray her as communicating ideas beyond her ability. They take this as proof she was inspired. This is true: Roberts and Butts were probably inspired by the depth of human credulity.

Actress [Shirley MacLaine](#) and the ABC television network gave this modern version of [ghosts](#) speaking through a [medium](#) a modicum of credibility. In 1987, ABC showed a mini-series based on MacLaine's book *Out on a Limb*, which depicts MacLaine conversing with spirits through channeler [Kevin Ryerson](#). One of the spirits who speaks through Ryerson is a contemporary of Jesus called "John." "John" doesn't speak Aramaic--the language of Jesus--but a kind of Elizabethan English. "John" tells MacLaine that she is co-creator of the world with God. MacLaine, a consummate egoist, becomes ecstatic to find out that she is right about a belief she'd expressed earlier, viz., that she IS God (Gardner, 1987).

One of MacLaine's favorite channelers is [J.Z. Knight](#) who claims to channel a 35,000 year-old Cromagnon warrior called Ramtha. This preposterous notion has made her famous and wealthy. Some of her patrons pay as much as \$1,000 to attend her seminars where she dispenses such wisdom as "[we must] open our minds to new frontiers of potential."

See **related entries** on ["Carlos," dianetics](#), [Bridey Murphy](#), [Edgar Cayce](#), [Rama](#), [Ramtha](#), and [reincarnation](#).

further reading

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Ouija board

A Ouija board is used in [divination](#) and [spiritualism](#). The board usually has the letters of the alphabet inscribed on it, along with words such as 'yes,' 'no,' 'good-bye' and 'maybe.' A planchette (a slidable 3-legged device) or pointer of some sort is manipulated by those using the board. The users ask the board a question and together or one of them singly moves the pointer or the board until a letter is "selected" by the pointer. The selections "spell" out an answer to the question asked.

Some users believe that paranormal or supernatural forces are at work in spelling out Ouija board answers. Skeptics believe that those using the board either consciously or unconsciously select what is read. To prove this, simply try it blindfolded for some time, having an innocent bystander take notes on what letters are selected. Usually, the result will be unintelligible non-sense.

The movement of the planchette is not due to paranormal forces but to unnoticeable movements by those controlling the pointer, known as the [ideomotor effect](#). The same kind of unnoticeable movement is at work in [dowsing](#).

The Ouija board was first introduced to the American public in 1890 as a parlor game sold in novelty shops.

E.C. Reiche, Elijah Bond, and Charles Kennard ... created an all new alphanumeric design. They spread the letters of the alphabet in twin arcs across the middle of the board. Below the letters were the numbers one to ten. In the corners were "YES" and "NO."

Kennard called the new board Ouija (pronounced 'wE-ja) after the Egyptian word for good luck. Ouija is not really Egyptian for good luck, but since the board reportedly told him it was during a session, the name stuck.*

Kennard lost his company and it was taken over by his former foreman, William Fuld, in 1892.

One of William Fuld's first public relations gimmicks, as master of his new company, was to reinvent the history of the Ouija board. He said that he himself had invented the board and that the name Ouija was a fusion of the French word "oui" for yes, and the German "ja" for yes.*

Although Ouija boards are usually sold in the novelty or game section of stores, many people swear that there is something occult about them. For example, Susy Smith in *Confessions of a Psychic* (1971) claims that using a Ouija board caused her to become mentally disturbed. In *Thirty Years Among the Dead* (1924), American psychiatrist Dr. Carl Wickland claims that using the Ouija board "resulted in such wild insanity that commitment to asylums was necessitated." Is this what happens when amateurs try to dabble in the occult? Maybe, if they are suggestible, not very skeptical and a bit disturbed to begin with. However, even very intelligent people who have not gone insane are impressed by Ouija board sessions. They find it difficult to explain the "communication" as the ideomotor effect reflecting unconscious thoughts. One reason they find such an explanation difficult to accept is that the "communications" are sometimes very vile and unpleasant. It is more psychologically pleasing to attribute vile pronouncements to evil spirits than to admit that one among you is harboring vile thoughts. Also, some of the "communications" express fears rather than wishes, such as the fear of death, and such notions can have a very visible and significant effect on some people.

Observing powerful messages and the powerful effect of messages on impressionable people can be impressive. Yet, as experiences with [facilitated communication](#) have shown, decent people often harbor indecent thoughts of which they are unaware. And the fact that a person takes a "communication" seriously enough to have it significantly interfere with the enjoyment of life might be a sufficient reason for avoiding the Ouija board as being more than a "harmless bit of entertainment," but it is hardly a sufficient reason for concluding that the messages issue from anything but our own minds.

See related entries on [the ideomotor effect](#), [dowsing](#), [facilitated communication](#) and [the unconscious mind](#).

further reading

[reader comments](#)

- [Ouija in the Classroom](#) by Larry Barrieau
- [History of the Ouija](#)
- [WWW Ouija board](#)
- [How Does the Ouija Board Work?](#) The Straight Dope



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repressed memory therapy (trauma-search therapy)

Repressed memory therapy (RMT) is a type of psychotherapy which assumes that problems such as bulimia, depression, sexual inhibition, insomnia, excessive anxiety, etc., are due to unconsciously [repressed memories](#) of childhood sexual abuse. RMT assumes that a healthy psychological state can only be restored by recovering and facing these repressed memories of sexual abuse.

Any amount of sexual abuse of children is intolerable. Nevertheless, there is little scientific evidence supporting the notions that (a) childhood sexual abuse almost always causes psychological problems in adults; or that (b) memories of childhood sexual abuse are *unconsciously* repressed; or that (c) recovering repressed memories of abuse leads to significant improvement in one's psychological health and stability.

[The Royal College of Psychiatrists](#) in Britain has officially banned its members from using therapies designed to recover repressed memories of child abuse. The British Psychological Society, on the other hand, does not ban its members from such therapy, but in a 1995 report urged them to "avoid drawing premature conclusions about memories recovered during therapy." The report noted that a patient's recovered memory may be metaphorical or emanate from dreams or fantasies. The report also denied that there is any evidence suggesting that therapists are widely creating false memories of abuse in their patients, a charge levied by members of the [False Memory Syndrome Foundation](#).

In the U.S.A., [The American Psychological Association's](#) Working Group on the Investigation of Memories of Childhood Abuse also issued a report in 1995. The report notes that recovered memory is rare. It also states that "there is a consensus among memory researchers and clinicians that most people who were sexually abused as children remember all or part of what happened to them although they may not fully understand or disclose it....At this point," according to the APA, "it is impossible, without other corroborative evidence, to distinguish a true memory from a false one." Thus, says the APA report, a "competent psychotherapist is likely to acknowledge that current knowledge does not allow the definite conclusion that a memory is real or false without other corroborating evidence."

the RMT checklist

Many of the more prominent RMT advocates use a [checklist approach](#) to

diagnose repressed memories of childhood sexual abuse as the cause of a patient's problems, despite the fact that "there is no single set of symptoms which automatically indicates that a person was a victim of childhood abuse" ([APA report](#)). Works on child abuse promoting such a notion have been very popular among therapists and talk show hosts featuring [Ellen Bass, Laura Davis \(*The Courage to Heal*\)](#), Wendy Maltz, Beverly Holman, Beverly Engel, Mary Jane Williams and E. Sue Blume. Through [communal reinforcement](#) many empirically unsupported notions, including the claim that about half of all women have been sexually abused, get treated as facts by many people. Dr. Carol Tavris writes

In what can only be called an incestuous arrangement, the authors of these books all rely on one another's work as supporting evidence for their own; they all endorse and recommend one another's books to their readers. If one of them comes up with a concocted statistic--such as "more than half of all women are survivors of childhood sexual trauma"--the numbers are traded like baseball cards, reprinted in every book and eventually enshrined as fact. Thus the cycle of misinformation, faulty statistics and invalidated assertions maintains itself (Tavris).

One significant difference between this group of experts and, say, a group of physicists is that the child abuse experts have achieved their status as authorities not by scientific training but by either (a) experience [they were victims of child abuse or they treat victims of child abuse in their capacity as social workers], or (b) they wrote a book on child abuse. The child abuse experts aren't trained in scientific research, which, notes Tavris, "is not a comment on their ability to write or to do therapy, but which does seem to be one reason for their scientific illiteracy."

Here are a few of the unproved, unscientifically researched notions that are being bandied about by these child abuse experts: (1) If you doubt that you were abused as a child or think that it might be your imagination, this is a sign of "post-incest syndrome" [Blume]. (2) If you can't remember any specific instances of being abused, but still have a feeling that something abusive happened to you, "it probably did" [Bass and Davis]. (3) When a person can't remember his or her childhood or has very fuzzy memories "incest must always be considered a possibility" [Maltz and Holman]. (4) "If you have any suspicion at all, if you have any memory, no matter how vague, it probably really happened. It is far more likely that you are blocking the memories, denying it happened" [Engel].

As a point of reference, the U.S. Bureau of Justice Statistics reports that a survey done of female state prison inmates in 1996-97 found that some 36 percent said they had been sexually or physically abused at age 17 or younger. The terms 'sexual abuse' and 'physical abuse' were not clearly defined;

however, one-third reported they had been raped before incarceration. By comparison, 16 studies of child abuse in the general population found that from 12 percent to 17 percent reported they had been "abused" as children.

Furthermore, people who have experienced traumatic events usually do not forget them. Severely traumatic experiences are typically forgotten only if (a) the person is rendered unconscious at the time of the trauma; (b) the person is brain damaged before or by the trauma; or (c) the person is too young to make the necessary neural connections needed for long-term memory. Memories are not stored in some mysterious dark cellar, but in a complex network of neural connections involving several parts of the brain. Memories are lost because neural connections are lost, not because some homunculus stores them in the basement of the mind and let's them haunt the people upstairs in the room where clear consciousness dwells.

memory and repression

Before discussing the methods and techniques of RMT, it should be noted that very few recovered memories of childhood sexual abuse first occur spontaneously. When they do, they are usually more likely to be corroborated by evidence than those evoked in RMT therapy. In fact, in some cases corroborative evidence serves as the [retrieval cue for the repressed memory](#). RMT, however, seems to be able to produce recovered memories of sexual abuse in most of its clients. To those practicing RMT, this is proof of its power and effectiveness. To skeptical critics this is warning sign: the memories are [confabulations](#) suggested by prodding, suggestive therapy.

Daniel Schacter notes that the scientific evidence for repression is weak. Even weaker is the evidence that specific disorders are caused by repression. He notes the case of a rape victim who could not remember the rape, which took place on a brick pathway. The words 'brick' and 'path' kept popping into her mind, but she did not connect them to the rape. And she became very upset when taken back to the scene of the rape, though she didn't remember what had happened there ([Schacter 1996, 232](#)). One could posit that the victim really does have a full-fledged memory of the rape, but she has repressed it. Hypnosis could help bring forth this repressed memory. However, hypnosis or other methods starting with this assumption are risky as well as unfounded. The concept of *implicit memory*, i.e., memory without awareness, which is due to the fact that some neural connections have been made during a trauma, but not enough for a full-fledged recollection, could explain this rape victim's incomplete memory without assuming that she was recording memories while she was unconscious. The concept of implicit memory explains everything that is known about memory without making assumptions about what is not known.

Furthermore, even if traumatic memories are repressed sometimes, they are probably done so consciously and deliberately. Many of us choose not to

dwell on unpleasant experiences and make a determined effort to wipe them from our memories as far as possible. We hardly desire some hypnotist or therapist to dredge up memories of experiences we've chosen to forget. In short, limited amnesia is best explained neurologically, not metaphysically. We forget things either because we never encoded them strongly enough in the first place or because neural connections have been destroyed or because we choose to forget them.

RMT techniques

RMT uses a variety of methods--including [hypnosis](#), visualization, group therapy, and [trance writing](#)--to assist the patient in 'remembering' the traumatic event. Hypnosis is risky because it is easy to lead and encourage the patient by suggestive or leading questions. Trance writing has never been proven to have any therapeutic value (Schacter 1996, 271). Group therapy, on the other hand, can become [communal reinforcement](#) of delusions, if the therapist is not careful. People in the group can encourage others to share bizarre tales without fear of ridicule. The group might not originate the repressed memory, but they might facilitate the birth and nourish the growth of horrendous fantasies.

Using guided imagery or visualization in therapy can also be dangerous. Sherri Hines describes how her therapist used this method to help her retrieve a memory of being abused by her father:

My father would give me a bath and he used to draw on the mirror, draw on the steam, and he would draw cartoon characters. And that was the seed for a memory; we would start with that.

And [my therapist] would tell me, 'You're in the bathtub. Your dad is there. He's drawing in the mirror. What is he drawing?' Then he'd say, 'OK, now your father's coming over toward you in the bathtub. He's reaching out to touch you. Where is he touching you?' And that's how the memories were created (Hallinan 1997).

Hines came to believe she was molested by her father and became so depressed she attempted suicide. She is now out of therapy and believes the memories were false and created in therapy.

The case of Diana Halbrook also brings into question the reliability of RMT methods. In a trance writing session, Hallbrook had written that her father had molested her. This was shocking news to her! She went into group therapy and heard bizarre tales of satanic ritual sacrifices. Soon the same kinds of bizarre events appeared in her trance writings, including the recovered memory that she'd killed a baby.

Because Diana Halbrook's ritual abuse memories seems so outlandish, her doubts about the reality of these and her other recovered recollections continued to grow. But these doubts met resistance from the people in her support group and her therapist. "I continually questioned the memories, doubted them, but when I questioned the therapist, he would yell at me, tell me I wasn't giving my 'little girl within' the benefit of the doubt. Tell me that I was in denial. I didn't know what to believe. But I trusted him" (Schacter 1996, 269).

Halbrook got out of the therapy, characterized by Daniel Schacter as "toxic," and no longer believes the outlandish memories. Schacter comments that "the most reasonable interpretation is that the events [recovered in therapy] do not have any basis in reality."

Each of the various methods described above has been very successful in getting patients to "remember" many things of which they were unaware before therapy. The "memories" include not just memories of being sexually abused as children, but of some very bizarre things, such as being [abducted by aliens](#) for sexual experimentation or breeding, being forced to participate in [satanic rituals](#), or being traumatized in a [past life](#).

Psychologist Joseph de Rivera claims that in RMT "rather than help the patient separate truth from fantasy, the therapist encourages the patient to 'remember' more about the alleged trauma. And when the patient has an image--a dream or a feeling that something may have happened--the therapist is encouraged, praises the patient's efforts and assures him or her that it really did happen." This kind of therapy, he says, "confuses the differences between real and fantasized abuse and encourages destruction of families" (de Rivera 1993).

The [False Memory Syndrome Foundation](#) claims to have hundreds of such cases on file. Several cases have gone to court and therapists have been found liable for the harm caused by planting false memories. Despite the claims of hundreds of successful expeditions to recover lost memories by RMT therapists, some judges will not accept memories recovered in therapy as evidence. Judge William J. Groff of New Jersey wrote in case he heard in 1995 that

...the phenomenon of memory repression, and the process of therapy used in these cases to recover the memories, have not gained acceptance in the field of psychology, and are not scientifically reliable (quoted in Schacter 1996, 267).

It is true that another New Jersey judge, Linda Dalianas, did allow such

testimony in a later case but she also stated that

...[t]he Court will not allow expert evidence regarding either the process or the plausibility of 'recovering' an allegedly repressed memory, because the experts have not offered any data either supporting or refuting any theory of how or whether a 'lost' memory might be recovered (Schacter 1996, 267).

In California, where a recovered memory not only was allowed but served as the [basis for a murder conviction](#), the case was eventually overturned because of failure to reveal to the jury that the source of nearly every detail remembered about the murder could have been readily accessible newspaper accounts. It was also revealed that the person who claimed she had had a spontaneous flashback of the crime, lied about that, as well as about whether she had recovered her memories of the crime during hypnotherapy.

Are RMT therapists creating false memories of abuse?

"The Memory Wars" is the apt title of Daniel Schacter's chapter on repressed memory in his 1996 book *Searching for Memory*. To enter the controversy over repressed memory and the psychotherapies used to "recover" memories of childhood sexual abuse is to enter a war zone. On the one side--The Recovered Memory side--are those who maintain that patients with certain kinds of physical and mental disorders have repressed memories of childhood sexual abuse which must be recovered during therapy. The other side--The False Memory side--maintain that the memories recovered in therapy are not recollections of actual childhood sexual abuse but are constructed memories built out of materials suggested to the patient or implanted by the therapist during therapy.

On the recovered memory side are [Lenore Terr](#), [Laura Brown](#), [Kenneth Pope](#), [Laura Davis](#) and [Ellen Bass](#) among others. On the False Memory side are [Elizabeth Loftus](#), [Carol Tavris](#), [Richard Ofshe](#) and the [False Memory Syndrome Foundation](#), among others. Opponents in this war are not seen as colleagues in quest of the same truth, but as demons, villains or frauds. Schacter seems to tiptoe on glass as he presents what is known, not known, guessed at, etc., in this area. His conclusions seem pretty weak, if not contradictory, given the evidence he presents (272).

First, there is no conclusive scientific evidence from controlled research that false memories of sexual abuse can be created--nor will such evidence ever exist, because of ethical considerations. Second, there is likewise no definitive scientific evidence showing that therapy per se or specific suggestive techniques are alone responsible for the creation of inaccurate memories. Third, several separate strands,

when considered together, support the conclusion that some therapists have helped to create illusory recollections of sexual abuse....

On the other hand, Schacter presents strong evidence from controlled research that memories can be created, and he makes a strong argument that [repression](#), the conceptual basis for RMT, has little scientific support. This concept has widespread acceptance in the psychological and psychiatric communities--as does the related theory of [dissociation](#)--but scientific studies demonstrating such mechanisms are lacking. Those in the RMT movement begin with the assumption that the demonstration of any of a number of *symptoms* is evidence of childhood sexual abuse. Many of the symptoms would not necessarily indicate any deep psychological problems, much less a traumatic source. Many could be symptomatic of a number of disorders having no basis in sexual trauma. Therapists who assume their patients have been sexually molested, and assume that any memories they have, no matter how fantastic or delusional, are either accurate memories of abuse or *symbolic* of abuse, do not need to plant memories in their patients to find that they've been abused. The therapists have determined *a priori* that whatever mental artifacts they uncover will lead the way to childhood sexual abuse as the cause of their patient's problems.

Studies by Marcia Johnson et al. have shown that the ability to distinguish memory from imagination depends on the recall of source information (Schacter 1996, 116). Thus recovered memories of abuse might be very vivid and accurate in many details, but incorrect about the source of the memory. For example, in the case of Diana Halbrook it is very probable that the source of her satanic ritual memories is to be found in her group therapy.

memories of abuse as symbolic

One thing the RMT group has accomplished in these Memory Wars is to divert attention from the questionable mechanism of repression and their predetermined, unscientific methods of interpreting symbolic meanings of recollections, to the issue of whether the RMT therapists are planting memories in their patients. This was not intentional, but the result of a number of lawsuits against RMT therapists by former patients, all of whom recanted the memories of childhood abuse uncovered in therapy and blamed their therapists for ruining their lives by planting false memories of abuse in their minds. But the issue over whether a particular memory has been planted by a particular therapist is mainly of importance because the alleged memories are of horrible things and they are very disruptive and destructive of peoples' lives. If therapists were planting all kinds of good memories in patients' minds, helping them enjoy more satisfying lives and relationships, it is doubtful that there would be such an uproar.

Some of the memories recovered in RMT are extraordinarily bizarre, so

bizarre that one would think that a reasonable person could hardly take them at face value. But RMT therapists are not put off by bizarre "recollections." They either take them at face value (as [John Mack](#) does of his alien abduction patients and others do when interrogating children). Or they take them as "artifacts" of the mind, which therapists must analyze as if they were archaeologists who must infer the real truth from the artifacts. Or they take fantastic memories as *symbolic* of real experiences.

Laura Brown, for example, a Seattle psychologist in the forefront of RMT says that fantastic memories are "perhaps coded or symbolic versions of what really happened." What really happened, she's sure, was sexual abuse in childhood. "Who knows what pedophiles have done that gets reported out later as satanic rituals and cannibalistic orgies?" asks Dr. Brown (Hallinan 1997).

In the past, Brown has criticized the False Memory Syndrome Foundation for being unscientific, but her emphasis on the symbolic nature of fantastic memories has little scientific credibility itself. Where is the scientific evidence that a fantastic memory can be distinguished from a delusion? How do we distinguish memories of real cannibalism from symbolic memories? We usually know what a crucifix or a swastika symbolizes, but what does eating an infant symbolize? Symbols might be ambiguous. How can we be sure that a memory is a symbol of child abuse and not of adult abuse by co-workers, or by other children who tormented the patient years ago, or by the therapist him- or herself? How can we be sure it is not a symbol of self-abuse? How can we be sure it is a symbol of *any* kind of abuse at all? What would distinguish a symbol of abuse from a symbol of *fear* of abuse? For that matter, what would distinguish a symbolic representation of fear of *being abused* from one representing fear of *abusing someone else* in the present, or a *regret* of having abused someone else in the past? The dangers and imminent probabilities of misinterpretation of symbolic memories should be obvious, especially when it is not always that clear that a memory really is a symbolic expression at all.

Are we to accept without question the notion that any memory, true or false, reflects some truth, objective or subjective, which only the trained therapist can determine? That seems to be the view of some RMT advocates. If so, we are being asked to accept mysticism instead of science. How could one possibly disprove the claim that a memory which is incredible on its face is a symbolic message? Can anyone imagine any empirical test for this notion? If the issue were simply whether a memory is accurate, there would be some hope of establishing in some cases that the probability is that the memory is true or that it is false. But if the issue is whether a memory *has a meaning*, that point will probably soon be granted, since we don't like to think of ourselves as doing anything without there being some reason for it.

How do we determine the real reason for a confabulation? Don't therapists

and those of us who interpret memories or dreams become storytellers ourselves? As storytellers, isn't it reasonable to assume that *our* stories may not be literally true, but are symbolic and must be interpreted by another storyteller, ad infinitum? Perhaps "repression" is not to be taken literally, but symbolically. Perhaps each therapist must develop a subjective truth for concepts such as "repression" and "therapy." If this is so, then therapy is a dangerous weapon to be feared by everybody rather than a blessing to be sought by those with psychological problems. History is replete with examples of what happens when any group of authorities do not have to answer to empirical evidence but are free to define truth as they see fit. None of the examples has a happy ending. Why should it be otherwise with therapy?

See **related entries** on [false memory](#), [hypnosis](#), [hystero-epilepsy](#), [memory](#), [multiple personality disorder](#), [psychology](#), [repressed memory therapy](#), [satanic ritual abuse](#), [New Age Therapies](#) and [the unconscious mind](#).

further reading

[reader comments](#)

- [My review of *Crazy Therapies* by Singer & Lalich](#)
- [StopBadTherapy.com](#)
- [Twelve Myths about False Memories](#)
- [Mass Media Funk: Study shows the longer one is in RMT, the more disabled one becomes](#)
- [Statements by Professional Organizations on recovered memory therapy](#)
- ["Truth or invention: exploring the repressed memory syndrome"](#) excerpt from *The Myth of Repressed Memory* by Loftus, Elizabeth and Katherine Ketcham
- ["Remembering Dangerously"](#) by Elizabeth Loftus
- [False Memory Syndrome Foundation WWW Page](#)
- [FMSF Online](#) - news of the Houston criminal trial
- [Recovered Memories or Modern Witch Hunt?](#) by Douglas E. Hill
- [Recovered Memory Therapy and False Memory Syndrome](#) by John Hochman, M.D.
- ["First of All, Do No Harm" A Recovered Memory Therapist Recants An Interview With Robin Newsome](#) By Mark Pendergrast
- [Ontario Consultants on Religious Tolerance: repressed memory therapy page](#)
- [Illinois to punish psychiatrist who convinced patient she was flesh-eater](#)

- ["Recovered Memories of Abuse: Assessment, Therapy, Forensics,"](#) By Kenneth S. Pope, Ph.D., ABPP and Laura S. Brown, Ph.D., ABPP
- ["Recovered Memories of Sexual Abuse: Scientific Research & Scholarly Resources"](#) By Jim Hopper, M.A.
- ["Do kids lie? Yes – and they're good at it"](#) by Greg McArthur

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spiritualism (spiritism)

Spiritualism or spiritism is the belief that the human personality survives death and can communicate with the living through a sensitive [medium](#). The spiritualist movement began in 1848 in upstate New York with the Fox sisters who claimed that spirits communicated with them by rapping on tables. (The "raps" were actually made by cracking their toe joints.) By the time the sisters admitted their fraud some thirty years later, there were tens of thousands of mediums holding séances where spirits entertained with numerous magical tricks such as making sounds, materializing objects, making lights glow, levitating tables and moving objects across the room. The mediums demonstrated every variety of psychic power from [clairvoyance](#) and [clairaudience](#) to [telekinesis](#) and [telepathy](#). Repeated charges of fraud did little to stop the spiritualist movement until the 1920's when magicians such as [Houdini](#) exposed the techniques and methods of deceit used by mediums to fool even the wisest and holiest of men and women.

The Hollywood version of [séances](#) is fairly accurate: people sitting around a table, holding hands in a darkened room, a faked trance by the medium who passes on to the group any information given by the spirit, often accompanied by tricks such as the levitating table, mysterious sounds, materializing objects, etc. For many, spiritualism was "scientific proof" of life after death, which didn't involve any of the superstitious non-sense of religion.

See related entries on [channeling](#) and [James Van Praagh](#).

further reading

- [Spiritualism from NewAge.com](#)
- [SpiritHistory \(19th century\)](#)

[Houdini, Harry. *A Magician Among the Spirits* \(New York: Harper, 1924\).](#)

[Houdini, Harry. *Miracle Mongers and Their Methods: a Complete Expose* \(Buffalo, N.Y.: Prometheus Books, 1981\). * **Free online!**](#)

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

[Rawcliffe, Donovan Hilton. *Occult and Supernatural Phenomena*\(New York: Dover Publications, 1988\).](#)

[Stein, Gordon. "Spiritualism," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\).](#)

[Tanner, Amy. *Studies in Spiritism* \(Buffalo, N.Y.: Prometheus Books, 1994\).](#)

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 [spells](#)

[spontaneous human combustion](#) 

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avatar

An avatar is a variant phase or version of a continuing basic entity, such as the incarnation in human form of a divine being. [Avatar](#) is also the name of a New Age self-help course based upon changing a person's life by training the person to manage his or her beliefs. According to [Jack Raso](#), "Avatar's fundamental doctrine is that people have a natural ability to create or 'discreate' any reality at will. This alleged ability stems from a hypothetical part of consciousness that proponents call 'SOURCE.'"

According to their promotional material,

Avatar awakens you to a natural ability you already have to create and discreate beliefs. With this skill, you can restructure your life according to the blueprint that you determine. One discovery many people on the Avatar course make is that what you are believing is less important than the fact that you are believing it. Avatar empowers you to realize that there aren't "good" beliefs and "bad" beliefs. There are only the beliefs that you wish to experience and the beliefs you prefer not to experience. Through the tools that the course presents you with, you create an experience of yourself as the source, or creator, of your beliefs. From that place, it's very natural and easy to create the beliefs that you prefer.

These notions seem so obviously a mixture of the true, the trivial and the false that one hesitates to comment on them. If there are no good or bad beliefs then how did the people at Avatar come upon the belief that their course has any value? And what difference does it make whether anyone believes in Avatar belief management techniques?

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[automatic writing](#)

[Ayurvedic medicine](#) 

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prana

Prana is the all-pervading vital energy of the universe, according to Hinduism. It is the Indian version of [chi](#).

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the pragmatic fallacy

The pragmatic fallacy is committed when one argues that something is true because *it works*. For example, [astrology works](#), [numerology works](#), [therapeutic touch works](#). What 'works' means here is not clear. At the least, it means that one perceives some practical benefit in believing that it is true, despite the fact that the utility of a belief is independent of its truth-value. At this level "works" seems to mean "I'm satisfied with it," which in turn might mean "I feel better" or "It explains things for me." At most, "works" means "has beneficial effects" even though the evidence may be very weak for establishing causality.

The pragmatic fallacy is common in ["alternative" health](#) claims and is often based upon [post hoc reasoning](#). For example, one has a sore back, wears the new magnetic or takionic belt, finds relief soon afterwards, and declares that the magic belt caused the pain to go away. How does one know this? Because *it works!*

There is a common retort to the skeptic who points out that customer satisfaction is irrelevant to whether the device, medicine, or therapy in question really is a significant causal factor in some outcome. Who cares *why* it works, as long as it works? You can argue about the theory as to why it works, but you can't argue about the customer satisfaction. They feel better after using the product. That's all that matters.

It isn't all that matters. [Testimonials](#) are not a substitute for scientific studies, which are done to make sure that we are not deceiving ourselves about what appears to be true. It is especially necessary to do controlled studies of alleged pain relievers to avoid [self-deception](#) due to the [placebo effect](#), [post hoc reasoning](#) or the [regressive fallacy](#). We may not want to question too deeply the felt relief, but we must question the *cause* of that relief.

It is easy to understand why someone with "terminal" cancer who seeks out an "alternative" treatment and finds the cancer goes into remission soon afterwards would attribute miraculous causal efficacy to the "alternative" treatment. However, if the "alternative" treatment is *not* really the cause of the remission, then others who seek the treatment will be filled with false hope. Of course, those patients who try the same treatment but who die anyway are not around to tell their story. Their surviving loved ones may even claim that the only reason the treatment did not work was because the patient came to it too late. The only way to know for sure whether the treatment has causal efficacy is to study its application under [controlled conditions](#). Testimonials regarding how well the treatment works may be heartfelt, but they can be

| dangerously misleading.

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Last updated 12/30/01



[post hoc fallacy](#)

[prana](#)



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bioharmonics

If someone is eating a disharmonic diet then there is no harmony in the bioenergy.--Linda Townsend

If [non-physical] bioenergetic fields exist, then some two hundred years of physics, chemistry, and biology has to be re-evaluated.--Victor J. Stenger

Bioharmonics is a New Age [pseudoscience](#), which [Linda Townsend](#) claims is "the science that studies bioenergy motions and interactions with other energy sources." She should know; she invented it, more or less.

Bioharmonics is one of many "[energy](#)" [medicines](#) to have emerged in recent years. All have in common the belief in energies distinct from heat, electromagnetic, nuclear, and other measurable energies. New Age energy is not detectable by modern scientific equipment, though some advocates employ useless gadgets touted as scientific machinery capable of harnessing, collecting, distributing, etc. some mysterious energy. Some are also fond of jargon and attempt to relate this energy to [quantum physics](#). These energies are either indistinguishable from or related to [chi](#) or [prana](#) or [chakras](#). Some claim they can feel this energy ([therapeutic touch](#)). Some claim they can see it ([auras](#)) and that it can be photographed ([Kirlian](#) photography). Some have claimed they could harness energy and promote healing or sexual prowess ([Reich](#)). Many have claimed that these energies are related to the spirit world.

bioharmonics and bioenergy

Townsend's writing indicates that she does not understand bioenergy the way biochemists do. In conventional biochemistry, bioenergy refers to "the readily measurable exchanges of energy within organisms, and between them and their environment, which occur by normal physical and chemical processes."[*](#) She writes:

In my personal research with bioenergy testing, I always find an irregularity that seems to be related to the physical condition whatever that condition may be. This has raised some questions about bioenergy being an expression of biochemistry. Therefore, if bioenergy and biochemistry have a mutual influence on each other, correcting bioenergy irregularities may also effect balancing the biochemistry.

These are not the claims of someone knowledgeable of biochemistry.

Townsend never quite defines 'bioenergy,' but her theory is that it needs to be "harmonized." She will even sell you a Harmonizer for \$1,295, which will help "to retune those weaken [sic] disharmonious areas of the body commonly found over sites of illnesses." She also recommends polarizers (\$80-\$120) and magnets. The polarizers are "non-magnetic devices filled with kelp, other plant life and minerals specifically chosen for their ability to attract cosmic light energy, also called '[chi](#)' or 'life force' energy." How she knows kelp attracts chi is not clear.

While Townsend does not define 'bioenergy', she does claim that there are three layers of bioenergy fields: the outer layer, the mid layer, and the inner layer.

The outer layer of the bioenergy field of a healthy person begins about six inches or more out from the body. The left side would be an overall counterclockwise motion and the right would be clockwise motion with a one way motion pulling another non-magnetic energy up the vertical mid lines in the front and back of the body. This is the same pattern as found over a bipolar magnet. This layer reveals [sic] the overall bioenergy health condition which is categorized into the bioenergy stages.

The mid bioenergy layer begins about two inches from the body and extends to the outer layer. It reveals the one way motions of main meridian line systems or what some might call "chi" flows at the hands and feet. In a healthy person this one-way energy motion comes into the left side and out the right. This is the layer that tends to show the most abnormalities found over organs and tissues.

The inner bioenergy layer reveals the one way motions of the lesser meridian line systems. It also reveals the unique patterns of energy stored in bone marrow, where physical regeneration and healing begin.

Ms. Townsend hasn't published any studies but she implies that the Harmonizer can "help" with many ailments, including cancer, diabetes, heart conditions, Parkinson's disease and paralysis. She says she has testimonials to back up these claims, though she is careful to disclaim any medical benefit for her products:

We do not claim that any medical conditions have been improved by BioHarmonics; we only have seen that bioenergy imbalances can be improved....This research is not medically related in any way and should not be considered in any matter to be beneficial for medical conditions....There are no

guarantees offered expressed or implied.

Presumably, she thinks such disclaimers protect her from lawsuits or from being criminally charged with practicing medicine without a license. She does claim, however, that

Frequency in BioHarmonics is merely a catalyst that influences energy motions. In my research, it is the bioenergy motion reactions to other energy sources that is the most important part...there is no one frequency that will work on every person with the same disease....What is really needed is the missing harmonics of bioenergy motions for the individual person because it is this weakness that hinders natural healing.

She also claims that her Harmonizer is better than others because her harmonics are in twos and other devices are in threes and "the main harmonics of the bioenergy of the body are in twos." How she knows this, or what it even means, is not clear.

Townsend makes numerous unsubstantiated, meaningless, or inane claims such as the color blue "dominates the left side of a healthy body in the outer bioenergy layer and is found in the blood bioenergy. It is also found at the nerve branches of several vertebra in the spine." And, "Red dominates the right side of the body in the outer bioenergy layer. It is opposite and attracting to Blue." She seems to have derived these notions from one of the great American quacks, [Dinshah P. Ghadiali](#), who invented Spectro-Chrome Therapy. She claims he influenced her early theories.

On the side, Ms. Townsend sells organic dog food, apparently to enhance canine bioharmonics. She also will be selling vitamins, minerals, flower essences, and homeopathics soon.

The danger, of course, of all such energy medicine is that people with real and treatable diseases will not get proper care. It is true that alternative practitioners can help some people by the [placebo effect](#) and by providing attention, love and care. However, there is no evidence that any of these energy medicines or quack medical devices has cured anyone's arthritis, cancer or other serious disorder.

See **related entries** on [acupuncture](#), ["alternative" health practices](#), [chi](#), [chakras](#), [crystals](#), [magnet therapy](#), [reiki](#) and [therapeutic touch](#).

further reading

[reader comments](#)

- [Why Bogus Therapies Often Seem to Work](#) by Barry L. Beyerstein
- [Bioenergetic Fields](#) by Victor J. Stenger
- [Museum of Questionable Medical Devices](#)
- [Quackwatch](#)

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reader comments:

24 Jul 2002

I see that Ayurveda and Dr Chopra are listed together. This is basically wrong! Dr Chopra might have used (or even misused) Ayurveda to popularize and make money using his 'theories and medicines', but Ayurveda has nothing to do with Dr Chopra or Maharishi Mahesh Yogi.

Many godmen especially from India are using and quoting the old Indian books to substantiate their claims. Indian books do contain some ancient wisdom as existed in those days. The fact that godmen are misusing them, should be a bad mark on them. Similarly, Ayurveda is an old system of Indian medicine. Dr Chopra has wrongly connected that with Quantum Physics and mysticism etc. Ayurveda should be treated on its own - without any reference to Dr Chopra or Maharishi.

One can add that a lot of modern gurus and TV yogis are using and misusing it. Ayurvedic medicines do work for several diseases. It is because of the power of herbs, nothing holy about it. You can't use it for quick remedy. But long-term effects are proven. The material and herbs used for various diseases are medically correct. For example pepper and clove mixture is indeed good for cough. No magic about it. Ginger water is good for stomach. No magic here. Simple medical value.

There are some modern medicines which have its origin in Ayurveda. One of them is SERPASIL which comes from the root of Rauwolfia Serpentina known as "sarpgandha" in Sanskrit. Used for high blood pressure here we have a medicine originating in Ayurveda and today mass produced by big firms. Of course in recent years so many pseudo gurus have misused Ayurveda to make money. That should not be a blemish on the system at all. I suggest you remove the connection between Ayurveda and Chopra in the next edition. Briefly mentioning is alright, but Ayurveda was not founded nor enriched by Chopra.

Best regards,

Gopi Nathan

Norway

PS: I am not a believer or supporter of godmen or miracle healers.

reply: I think my readers understand that Chopra and the Maharishi Mahesh Yogi are using Ayurveda for their own purposes.



[Ayurvedic medicine & Deepak Chopra](#)

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Aztec (New Mexico) UFO Hoax

The Aztec UFO Hoax was the work of *Variety* columnist Frank Scully who was hoaxed by two con men, Silas M. Newton and Leo A. Gebauer. Scully liked the hoax so much he wrote a book based on it: *Behind the Flying Saucers*. Scully claimed that a UFO had landed in Hart Canyon 12 miles northeast of Aztec in March of 1948 and sixteen humanoid bodies were discovered at the crash site inside a metal disk that was 99.99 (not 100) feet in diameter. A conspiring military secretly removed the craft and the bodies for their sinister research. No one in the area noticed the crash or the military activity, however. With no witnesses, Newton and Gebauer could play wildly with the truth.

Newton and Gebauer were involved in oil exploration finance schemes. Their hoax was perpetrated to get investors. They claimed they had built a machine that would find oil and natural gas deposits using alien technology. J.P. Cahn of the *San Francisco Chronicle* had some of the "alien" metal tested and determined it was aluminum. Cahn's account of the phony alien ship appeared in *True* magazine in 1952. Several people who had been swindled by Newton and Gebauer came forward. One of their victims, Herman Glader, a millionaire from Denver, pressed charges and the pair was convicted of fraud and related charges in 1953. (They had charged \$18,500 for a "tuner" which could be bought at surplus stores for \$3.50 at the time.)

The Aztec story was revived in 1986 by William Steinman and Wendelle Stevens in their privately-published book called [UFO Crash at Aztec](#). It was revived again in 1998 when Linda Mouton Howe, a UFO and Art Bell mainstay, claimed she had government documents that proved the Aztec crash. What she had was a rumor eight times removed from the source, Silas Newton, that eventually ended up in a memo written to J. Edgar Hoover. Newton told George Koehler about 3-foot tall aliens and their saucer; Koehler told Morley Davies who told Jack Murphy and I. J. van Horn who told Rudy Fick who told the editor of the *Wyandotte Echo* in Kansas City where it was read by an Air Force agent in the Office of Special Investigations who passed on the story to Guy Hottel of the FBI who sent a memo to his boss (Thomas).

The citizens of Aztec have seen how [Roswell](#) has turned UFO mania into a profitable tourist attraction and have followed suit. In March of 2000 they celebrated their 3rd annual Aztec [UFO Festival](#). The festival was started as a way to raise money for the town's library. There must be a better way.

See related entries on [alien abductions](#), [Area 51](#), [Roswell](#), and [UFOs](#).

further reading

- [UFOs: Crash at Aztec](#) by Roy Lawhon
- [The Aztec, NM UFO Scam](#)

"The Aztec UFO Symposium: How This Saucer Story Started As a Con Game," David E. Thomas, [Skeptical Inquirer](#), Vol. 22, No. 5, September/October 1998, pp. 12-13.

[Klass, Philip J. *The Real Roswell Crashed Saucer Coverup* \(Buffalo, N.Y.: Prometheus Books, 1997\).](#)

[Peebles, Curtis. *Watch the Skies!: A Chronicle of the Flying Saucer Myth* \(Smithsonian Institution Press, 1994\).](#)

Pflock, Karl T. "What's Really Behind the Flying Saucers? A New Twist on Aztec," *The Anomalist*: [#8 Spring 2000](#).

[Saler, Benson. Charles A. Ziegler, Charles B. Moore. *Ufo Crash at Roswell: The Genesis of a Modern Myth* \(Smithsonian Institution Press, 1997\).](#)

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[Ayurvedic medicine](#)

[Bach's flower therapy](#)



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reader comments:

Bach's flower therapy

15 May 1999

As an author and internationally certified Bach Flower Essence Practitioner, I must question your description of the Bach Flower Essences as a "type of homeopathic aromatherapy."

In what regard do you mean it is a form of aromatherapy? Although the Bach Flowers can be used integratively with Aromatherapy (Essential Oils), the flower essences do not affect the sensory organs in any way...neither by smell or by massaging on the skin using a carrier oil.

By using the expression "homeopathic aromatherapy" the reader may get a false impression.

reply: You are probably right, but since I cannot find a consistent use of the term 'aromatherapy' by those who practice it, and since much of what goes by the name of aromatherapy involves rubbing "essential oils" that may be eaten, used in a bath, drunk, rubbed on, and, for all I know, intuited, I have used this infelicitous expression. It is difficult to classify Bach's therapy, but I think it differs from much of what is called aromatherapy in that it is homeopathic. Hence, my description as it being a type of homeopathic aromatherapy. Perhaps it should be called a type of homeopathic mysticism.

[Jack Raso](#) describes your art as a "quasi-homeopathic system of pseudodiagnosis and pseudotherapy." Would that be more accurate?

The Bach Flower Essences are homeopathically-prepared liquids...with no direct relation to aromatherapy as far as I know. The flower essence liquids contain no physical components of the plant or flower from which it comes. It is therefore much safer than essential oils (aromatherapy).

reply: This is probably true. In fact, both are probably safer than drinking the tap water in my town.

The Bach Flower Essences are the only flower essences in the world approved for sale by the US FDA. They are listed in the US Homeopathic Pharmacopoeia.

Alicia Sirkin

Certified Bach Flower Essence Practitioner Registered with the Edward Bach Foundation

reply: Why would the FDA approve what it cannot test? Or does the FDA now believe that plants have souls?



[Bach's flower therapy](#)

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Backster effect

The alleged power of plants to understand human thought by reading bioenergetic fields. It is named after Cleve Backster for his work on [plant perception](#).

Last updated 09/19/02

[backwards Satanic messages](#)



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plant perception (a.k.a. the Backster effect)

Plants are living things with [cellulose](#) cell walls, lacking nervous or sensory organs. Animals do not have cellulose [cell](#) walls but do have nervous or sensory organs.

It would never occur to a plant or animal physiologist to test plants for consciousness or [ESP](#) because their knowledge would be sufficient to rule out the possibility of plants having feelings or perceptions on the order of human feeling or perception. In layman's terms, *plants don't have brains or anything similar to brains.*

However, a person completely ignorant of plant and animal science has not only tested plants for perception and feeling, he claims that he has scientific proof that plants experience a wide range of emotions and thoughts. He also claims that plants can read human minds. His name is [Cleve Backster](#) and he published his research in the *International Journal of Parapsychology* ("Evidence of a Primary Perception in Plant Life," vol. 10, no. 4, Winter 1968, pp. 329-348). He tested his plants on a [polygraph](#) machine and found that plants react to thoughts and threats.

[Dr. Backster](#) claims to have a D.Sc. in Complementary Medicine from Medicina Alternativa (1996). He has parlayed his doctorate into a position at the [California Institute for Human Science Graduate School and Research Center](#), an unaccredited institution founded by Dr. Hiroshi Motoyama for the study of "the human being as tridimensional." Dr. Motoyama is said to be a scientist and Shinto priest who "has awakened to states of consciousness that enable him to see beyond the limits of space and time."[*](#)

Backster's claims were refuted by Horowitz, Lewis, and Gasteiger (1975) and Kmetz (1977). Kmetz summarized the case against Backster in an article for the *Skeptical Inquirer* in 1978. Backster had not used proper controls in doing his study. When controls were used, no detection of plant reaction to thoughts or threats could be found. These researchers found that the cause of the polygraph contours could have been due to a number of factors, including static electricity, movement in the room, changes in humidity, etc.

Nevertheless, Backster has become the darling of several [occult](#), [parapsychological](#) and [pseudoscientific](#) notions. His work has been cited in defense of [dowsing](#),[*](#) various forms of "energy" healing,[*](#) [remote viewing](#),[*](#) and the [Silva mind control](#) program (now known as the Silva method). In

1995, Backster was invited to address the [Silva International Convention in Laredo, Texas](#). Nearly thirty years after his original "discovery," he is still telling the same story. It is a very revealing story and worth repeating. It shows his curious nature, as well as his apparent ignorance of the dangers of [confirmation bias](#) and [self-deception](#). Backster clearly does not understand why scientists use [controls](#) in causal studies.

the "lab" & the Eureka! experience

Backster tells us that it was on February 2, 1966, in his "lab" in New York City that he did his first plant experiment. His "lab" was not a science lab. In fact, it wasn't much of a lab at all in the beginning. It was just a place where he conducted training in the use of the [polygraph](#). There was a plant in the room. He recalls the following:

For whatever reason, it occurred to me that it would be interesting to see how long it took the water to get from the root area of this plant, all the way up this long trunk and out and down to the leaves.

After doing a saturation watering of the plant, I thought, "Well gee whiz, I've got a lot of polygraph equipment around; let me hook the galvanic skin response section of the polygraph onto the leaf.*"

The [galvanic skin response](#) (GSR) section of the polygraph measures the resistance of the skin to a small electrical current. Defenders of the polygraph think that galvanic skin responses are related to anxiety, and therefore to truthfulness. The theory is that when a person lies they are anxious and the amount of sweat increases slightly but measurably. As sweat increases, the resistance to electrical current decreases. Clearly, Backster is a very curious individual. A less inquisitive person would probably not care how long it would take water to get from the root to the leaves in an office plant. Not only did Backster care but he put his polygraph equipment to use as a measuring device. He reasoned as follows:

I felt that as the contaminated water came up the trunk and down into the leaf that the leaf becoming more saturated and a better conductor it would give me the rising time of the water....I would be able to get that on the polygraph chart tracing.

Why would the polygraph indicate this? Because, he says, he was using a "whetstone bridge circuit that is designed to measure resistance changes." Presumably, resistance changes would be picked up by the polygraph as the water reached the leaf. He predicted that the resistance would slowly drop and

the tracings on his polygraph paper would rise as the water reached the leaf. Instead, the opposite happened, which, he says, "amazed me a little bit."

Apparently, he moved the electrodes and saw that the contour of the polygraph chart was "the contour of a human being tested, reacting when you are asking a question that could get them in trouble." Backster claims that he then gave up his interest in measuring how long it takes water to get from the roots to the leaves of his plant. He says he believed that the plant was trying "to show me people-like reactions." He claims his next thought was: "What can I do that will be a threat to the well-being of the plant, similar to the fact that a relevant question regarding a crime could be a threat to a person taking a polygraph test if they're lying?" This is truly amazing. The contour of the graph triggered in him an immediate identification of the plant with one of his subjects. Until that moment, apparently, Backster had never suspected that the plants in his office were just like people and would respond similarly. Why he thought of threatening the plant isn't quite clear. I doubt that he threatened his human subjects. It also is not quite clear why the response to a threat to one's well-being would result in the same kind of response as being caught in a lie. At least Backster seems not to have considered seriously the notion that the plant might try to deceive him.

Backster says he tried for 13 minutes and 55 seconds to get a reaction out of the plant by doing such things as dipping a leaf in warm coffee, but he got no response. A less devoted inquisitor might have given up and gone home at this point, but not Backster. He concluded that the plant seemed like it was bored. Then, he had his Eureka! experience: "I know what I am going to do: I am going to burn that plant leaf, that very leaf that's attached to the polygraph." Now, why he would burn the leaf isn't clear, since burning it would (a) eliminate its moisture, making measurement of galvanic response impossible, and (b) it might damage his equipment attached to the leaf. Anyway, he tells us that there was a problem with carrying out his plan: he didn't have any matches. He claims, however, that while standing there some five feet from the plant the polygraph "went into a wild agitation." Rather than conclude that maybe the water finally got to the leaf or some other natural event was causing the polygraph needle movements, Backster became convinced that the plant was reading his mind and was reacting to his intent to burn it. This is indeed an interesting inference to make at this point. He gives no indication that he even considered that there might be other possible explanations for the movement of his polygraph. This may strike some readers as a good thing, that a gifted mind immediately grasps the truth. But actually this is a bad thing because your intuition could be wrong. What is very curious is that after more than thirty years of experiments, there is still no evidence that Backster and his many supporters see the importance of using controls in their studies of alleged plant perception.

Anyway, to return to the original experiment: Backster admits that he committed a bit of petty larceny in the name of science: he went to another office, went into a secretary's desk drawer and retrieved some matches. When

he got back to his experiment, he lit a match, but careful and observant scientist that he was, he realized that the machine was so agitated he wouldn't be able to measure any additional agitation. So, he left the room. When he returned "the thing just evened right out again, which really rounded it out and gave me a very, very high quality observation." What he meant by "a very, very high quality observation" is not clear. Backster's true genius is exhibited in his final remark on the remarkable experiment:

Now when my partner in the polygraph school we were running at the time came in, he was able to do the same thing also, as long as he intended to burn the plant leaf. If he pretended to burn the plant leaf, it wouldn't react.

It could tell the difference between *pretending* you are going to, compared to when you actually intend to do it, which is quite interesting in itself from a plant psychology standpoint.*

Plant psychology? I think Backster invented it that night. Had he just a smattering of understanding regarding the importance of using controls for studies which try to establish causality, he might have proceeded differently. The first step is to clearly define what you are testing and what each step in the procedure consists of. Backster and his partner don't have a clear notion of the difference between intending to burn the plant and pretending to be intending to burn the plant. Next, it might have occurred to them that there might be a better way to measure electrical current in plants than using a polygraph. They might have consulted with some experts and set up an experiment with proper equipment. Once they clarified what they were testing and how they would test it, they might have done twenty runs with the secretary doing the intending or pretending, them not knowing which, and them collecting the polygraph data. They would tell a third party which runs indicated pretending and which runs indicated intending. The third party would compare their claims with the secretary's data. That third party would also make sure that the polygraphers wouldn't be able to see what the secretary was doing during the experiment, lest they be influenced by something in her behavior. Then, just to be sure that it wasn't some movement the secretary made when she intended to burn the plant that caused the polygraph reaction, she should be made to make exactly the same movements when she intended and when she pretended to burn the plant. He should have done several trials with several different plants. And he probably should not have watered his plant just before doing the experiment. He should have known that moisture or humidity changes would affect the GSR readings. The fact is that Backster has never done anything like a controlled experiment and is no closer today than he was in 1966 to understanding why his polygraph made the contours it did when it was attached to his plant. Backster's admirers can truthfully say that his experiment has been repeated thousands of times around the world. Unfortunately, repeatability justifies claiming an outcome is probably true only if the original experiment was done properly.

sowing and reaping

Backster's claims have been publicized and supported by several people with qualifications and knowledge equal to his own: [journalist](#) Peter Tompkins and [gardener](#) Christopher O. Bird authored *The Secret Life of Plants* published in 1989, a presentation of the work of Backster and other "scientists" which allegedly proves that plants perceive [telepathically](#) and experience emotions such as fear and love. Bird is the author of *Modern Vegetable Gardening* and Tompkins has several "secrets" books: *Secrets of the Great Pyramid* (1997), *The Secret Life of Nature: Living in Harmony With the Hidden World of Nature Spirits from Fairies to Quarks* (1997) and *Secrets of the Soil: New Solutions for Restoring Our Planet* (1998).

Another supporter and expositor of Backster's work is Robert B. Stone, Ph.D., member of [Mensa](#), and author of *The Secret Life of Your Cells* published in 1994. Stone is also the author of the [Silva Method](#) (Jose [Silva's](#) mind control and self-healing program) and the [Silva Method: Unlocking the Genius Within](#). Stone and Silva authored one book together: [You the Healer](#). However, if one searches the literature of science, one searches in vain for support for the notion that plants are telepathic and feel emotions.

Despite the lack of scientific support for the notion of plant perception, the idea is accepted by many as not only true but as having been verified by numerous scientific studies! In fact, the power of plants to understand human thought by "reading" our "bioenergetic fields" is known among parapsychologists as *the Backster effect*.*

Typical of the testimonials in defense of Backster's claims are the following. Notice how they echo the claim that Backster's experiment has been duplicated many times by many different people. Notice, too, that like good storytellers these advocates embellish the tale with some interesting exaggerations. None of these testimonials, however, mentions the critical studies that both failed to verify Backster's claims and also explained why his studies were flawed.

Cleve Backster used a polygraph (lie-detector) to test plants, attaching electrodes to the leaves. By recording electrical impulses he found the plants to be extremely sensitive to his thoughts, particularly thoughts that threatened their well-being. Backster also observed a reaction in a plant when even the smallest cells were killed near it. He noted that they have a kind of memory, reacting to someone who earlier had done harm to another plant nearby: in a line-up of anonymous people the plant could pick out the one who had performed the act (John Van

Mater, theosophist).*

Cleve Backster was also famous, notorious in fact, and had been since about 1968 when he first claimed that plants have primary perceptions which can sense human thoughts and respond to them. This was the same as saying that PLANTS have sentient consciousness, are telepathic, and can process non-physical information. This, of course, absolutely shocked, angered and horrified scientists of all kinds, and Backster was pilloried in the media -- much to the enjoyment of hard-core parapsychologists who, back then, had nothing good to say about him.* To help correct this dismal rejection of Backster, it wasn't until the late 1980s that neurobiologists discovered and confirmed that plants do possess "primary perceptions" because they have "rudimentary neural nets."* [This claim from Ingo Swann is pure codswallop. Neurobiologists do not study plants and you will search in vain through the annals of neurobiological literature for verification of the Backster effect.]

....[map dowsing](#) has just as simple an explanation as on-site dowsing. Map dowsing seems to be related to what is sometimes called the "Backster Effect." Backster is a lie detector specialist and what he did was to attach a galvanic skin response device to the top leaf of a plant. This device measures the electrical resistance of the skin. He then watered the plant, fully expecting to measure how long it would take for the water to reach the leaf and change its resistance. Instead the lie detector immediately indicated, what would be a happy effect in humans. This puzzled him so he decided to traumatize the plant by burning, a leaf. The plant showed a fear response on the lie detector as soon as he had this thought. Backster's experiments have been duplicated thousands of times by many persons using many variations and have been well publicized on TV and in many books (Walt Woods, map dowser and author of the 20-page booklet *Letter to Robin: A Mini Course in Pendulum Dowsing*).

Backster's work in the late '60s and early '70s was an

important impetus for the best selling *The Secret Life of Plants* by Peter Tompkins and Christopher Bird. In the '80s, his work was chronicled by Robert Stone in *The Secret Life of Your Cells*. His research journey started with the 1966 almost accidental rediscovery that plants are sentient and respond to the spontaneous emotions and strongly expressed intentions of relevant humans. (J. Chandra Bose* of India had demonstrated a similar principle in the early part of the 20th century.) Using an instrument to measure galvanic skin responses (GSR), a part of his polygraph or lie detector stock-in-trade, Backster attempted to determine whether it would measure the moment of rehydration of a plant whose roots were freshly watered. It did not but to his surprise, the GSR meter registered his threat to burn the plant leaf when he spontaneously thought of the idea....

Over the last thirty years literally hundreds of experiments have proved the existence of this biocommunication known as the "Backster Effect." My own personal participation in one of these experiments left me without a doubt that a culture of yogurt in a shielded cage showed extraordinary reactions to feeling that were stirred up in me and two female colleagues as we discussed controversial gender and power issues. Interestingly, the yogurt did not react to periods of intellectual discussion about the same issues; it only became agitated when our comments were charged with emotion (Paul Von Ward, MPA and M.S., researcher and writer in the fields of "consciousness and frontier science").*

In 1969 Marcel [Joseph Vogel] gave a course in creativity for engineers at IBM. It was at this time that he read an article in Argosy magazine entitled "Do Plants Have Emotions?" about the work of polygraph expert Cleve Backster into the responsiveness of plants to human interaction. Despite initial rejection of the concept of human-plant communication, he decided to explore these strange claims.

He was able to duplicate the Backster effect of using plants as transducers for bio-energetic fields that the human mind releases, demonstrating that plants respond to thought. He used split leaf philodendrons connected to a Wheatstone Bridge that would compare a known resistance to an unknown resistance. He learned that when he released his

breath slowly there was virtually no response from the plant. When he pulsed his breath through the nostrils, as he held a thought in mind, the plant would respond dramatically. It was also found that these fields, linked to the action of breath and thought, do not have a significant time domain to them. The responsiveness of the plants to thought was also the same whether eight inches away, eight feet, or eight thousand miles! Based on the results of the experiments the inverse square law does not apply to thought. This was the beginning of Marcel's transformation from being a purely rational scientist to becoming a spiritual or mystical scientist.

Basically it was found that plants respond more to the thought of being cut, burned, or torn than to the actual act. He discovered that if he tore a leaf from one plant a second plant would respond, but only if he was paying attention to it. The plants seemed to be mirroring his own mental responses. He concluded that the plants were acting like batteries, storing the energy of his thoughts and intentions. He said of these experiments: "I learned that there is energy connected with thought. Thought can be pulsed and the energy connected with it becomes coherent and has a laser-like power."(Rumi Da, purveyor of fine crystals).*

In the seventies, a best-selling book called *The Secret Life of Plants* presented scientific research from around the world that explored plant intelligence. The chapter which made the biggest impression on me described a retired policeman in New York City, Cleve Backster, who trained people how to use lie detectors. As a lark, he hooked up his plants to a polygraph so he could monitor their responses.

One day, Backster approached his *Dracaena Massangeana* with a lighted match and acted as if he were going to burn it. Not only did the plant go wild on the graph but every other plant in the place did, too. He could hardly believe it. Continuing to experiment, he discovered that the plants responded to his thoughts even when he was miles away. One day, on the New Jersey Turnpike, he decided to let them know, through thought, that he was on his way home. When he arrived, he found that the plants had responded excitedly on the graph at the exact time he was communicating to them. Proximity was not a factor in their ability to sense him!

Everyone can develop this skill and ability. We all have it within us. All we have to do is acknowledge the possibility of it being true and then proceed with an open mind and heart (Judith Handlesman, spiritual gardener and vegetarian).*

Clearly, Backster has his followers and they think he has done fundamental and extraordinary work in science. Why hasn't he been awarded his Nobel Prize? Why does nearly the entire scientific community ignore him? The answer should be obvious. Nevertheless, Backster continues his work at the Backster Research Center in San Diego, California, where he claims to be able to demonstrate that his plants respond to his loving thoughts and even obey his thought commands.*

Ingo by jingo!

One of Backster's greatest admirers and defenders is [remote viewing](#) promoter [Ingo Swann](#) ("Remote Viewing - The Real Story"). Swann is the one quoted above who falsely claims that Backster's work was vindicated in the 1980s by neurobiologists when it was discovered that plants have neural networks. In 1971, according to Swann, Backster invited him to his plant lab and polygraph school. There Ingo claims he, too, made the polygraph needle hooked up to the plant "go haywire" when he thought of burning the plant with a match. He was able to repeat the event several times and then he couldn't get a response. Swann recalls the event and comes up with what he and Backster think must be the logical conclusion. Of course, neither one of them thinks they could be mistaken or deceived. It does not occur to either of them that they had better set up some controls.

"What does THAT mean," I asked. "You tell me." Then a very eerie thought occurred to me, so astonishing that it caused goosebumps. "Do you mean," I asked, "that it has LEARNED that I'm not serious about really burning its leaf? So that it now knows it need not be alarmed."

Backster smiled. "YOU said it, I didn't. Try another kind of harmful thought." So I thought of putting acid in the plant's pot. Bingo! But the same "learning curve" soon repeated itself. Now I already understood in my own "reality" that plants are sentient and telepathic, as all plant lovers know who talk to their plants. But that plants could LEARN to recognize between true and artificial human intent came as a thunderbolt! Among all this astonishment I came across the concept of the "learning curve" which ultimately was to play THE feature role in the development of remote viewing.

But Backster was moving on. "Do you think you could

influence some kind of metal or chemical?" "I don't know how to influence anything. But I could try." So for several weeks I went to the Times Square lab to try to zap metals and chemicals -- and the march of what I was unknowingly being sucked into moved into October, 1971.*

This kind of amateur approach to experiment and naive reinforcement of speculations as if they were facts established by incontrovertible evidence is typical of Backster and his supporters. A knowledgeable scientist would never be taken in by such rudimentary reasoning and speculation. But a scientifically ignorant person could easily be duped by these experiments.

the Backster effect and primitive religion

Jim Cranford is another defender of Backster, whom he sees as providing proof that animistic religions truly did involve communicating with vegetation.

Although similar experiments [to Backster's] have been repeated thousands of times, all over the world, for more than 15 years, we have failed to grasp the implications. Part of the problem is that Backster is not a "scientist" and those guys don't like to admit that anyone else knows anything. That's pride and arrogance at its worst, but not so unusual in the laboratory. Even the rest of us find it hard to believe that the "primitives" were actually communicating with their plants through rituals and sacrifice. We simply refuse to believe that there could be any "intelligence" around here but us, while we live in a world smarter than us at every turn. It is obvious that our collective view of primitive religion is in need of some revision.*

At least Cranford recognizes that Backster is not a scientist. "Those guys" would require controls when they do causal studies.

Backster and theosophy

Another advocate of Backster's ideas is [theosophist](#) John Van Mater, Jr., who thinks that Backster's work supports the notion that

...there is a life force, a cosmic energy surrounding living things, shared by all kingdoms including the human....Nature is a great brotherhood of beings, a symbiosis on many levels, most of it beyond our detection and ordinary understanding. The vegetable kingdom is an essential layer of the living planet's vitality or [prana](#),

helping to provide in its metabolism a breathing, intelligent organ that produces and regulates the atmosphere as well as transfers energy into the biosphere. Plants are also a link in the chain of beings, in which each kingdom or level needs the others in order to function and evolve. (See "[Our Intelligent Companions, the Plants,](#)" John Van Mater, Jr., *Sunrise* magazine, April/May 1987 published by [Theosophical University Press](#).)

Thus, Backster's shoddy science is brought in to support metaphysical notions to go along with his support for dowsing, energy healing, telepathy, remote viewing and who knows what else.

scientific support?

Although mainstream science has shunned Backster's claims about [telepathic](#) plants and their "primary perception," [Earthpulse.com](#), a New Age UFO/Environmentalist site that sells "frontier science" books, allegedly found a botanist named Richard M. Klein from the University of Vermont to provide a blurb for *The Secret Life of Plants*.

If I can't 'get inside a plant' or 'feel emanations' from a plant and don't know anyone else who can, that doesn't detract one whit from the possibility that some people can and do....

Truer words were never spoke. However, a search of the University of Vermont's web site failed to find any member of the botany department or any other other department named Richard M. Klein. Maybe Mr. Klein has been abducted by aliens. Or perhaps he is working with Mr. Backster on how to properly conduct a double-blind controlled study. After all, Backster may have finally found a proper use for the polygraph.

***note1: It is interesting that John Kmetz had a different reading of the media. Kmetz writes: "It is unfortunate that the popular press has taken Backster's experiments and presented the results to the public in such a way that many people now believe plants can do something that, in fact, they cannot. The press, for the most part, never mentions that articles on the Backster effect are based on observations of only seven plants. Perhaps they need to be reminded, again, that they are making exaggerated claims from an experiment that no one, including Backster, by his own refusal to do so, has been able to replicate."**

***note2: Sir Jagadis Chundra Bose was a Bengali scientist and admirer of**

the French [vitalist](#) [Henri Bergson](#)

further reading

- [American Society of Plant Physiologists](#) and their journal [Plant Physiology](#)
- [Cleve Backster from 1995 Silva International Convention](#)
- [Cells Caught in the Act of Communication](#) by Robert B. Stone, Ph.D. (MISHA [Monterey Institute for the study of Alternative Healing Arts] newsletter 11)

Horowitz, K. A., D.C. Lewis, and E. L. Gasteiger. 1975. Plant primary perception. *Science* 189: 478-480.

Kmetz, J. M. 1977. A study of primary perception in plants and animal life. *Journal of the American Society for Psychical Research* 71(2): 157-170.

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[the placebo effect](#)

[Pleiadians](#)



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backward satanic messages (backmasking)

An alleged practice of certain evil people, especially rock musicians, of saying or singing words which, when listened to backward contain evil messages such as "My sweet Satan"* or "Kill yourself."

Since most people do not listen to their music backward, the belief in such messages seems to be predicated upon one or two false notions. Either [1] the brain can be influenced subliminally by garbled words whose meaning is directly grasped by the subconscious or [2] the conscious mind translates clear speech into [reverse speech](#) where the "true" meaning is understood by the subconscious mind. In either case, the subconscious mind allegedly then directs the conscious mind to believe bad things or do bad deeds. There is no evidence that such mechanisms exist.

The belief in the existence and efficacy of backward satanic messages probably derives from the ancient practice of mocking Christianity by saying prayers backward at the witch's Sabbath. The belief is mainly popular among certain fundamentalist preachers who cannot look at anything without wondering how [Satan](#) is involved.

The Beatles used tapes played backward for musical effect in some of their recordings, though they allegedly put in backward or subliminal messages announcing Paul McCartney's death when he was much alive. Jimmy Page, guitarist and occultist, is said to have inserted the backward message "here's to my sweet Satan" into his "Stairway to Heaven." The former was clearly intentional; the latter is said to be accidental by many of those who have listened but have not heard. It is likely that many listeners are hearing what they want to hear or are hearing what others tell them they will hear.

One practical problem emerged with using this backhanded way to communicate: the only way to hear the messages is to destroy your record. There were at least two benefits to such destruction, however: the increased sales of records and the birth of rap music. Nowadays, however, computers come with standard programs like Sound Recorder for Windows that let you play any .wav file in reverse, thus making it simple to listen to your favorite tunes backward if you are so inclined.

See related entries on [Aleister Crowley](#), [pareidolia](#), and [reverse speech](#).

further reading

[reader comments](#)

- [Secret Messages on Records](#) Excerpt from *Big Secrets* by William Poundstone

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[Backster effect](#)

[ball lightning](#)



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reverse speech

"The implications are mind boggling because reverse speech opens up the Truth. " --David John Oates (a.k.a. *Stone Adjective* or *Stow Nods-of-aid*.)

***The truth is a lie told backwards.*--Llorrac Trebor**

Reverse speech is a form of communication arising from the unconscious mind, according to [David John Oates](#). The unconscious mind, says Oates, is a seat of deep truths, inexorable honesty and hidden meanings. Oates, who credits himself with the discovery of reverse speech, says that the unconscious mind sends out backwards messages to the conscious mind every 10 to 15 seconds. The conscious mind then reverses the reverse message and directs us to speak in forward speech. To grasp the real meaning of our speech we must tape it and play it backwards.



Oates claims that reverse speech is a

form of human communication that is automatically generated by the human brain. It occurs every time we speak and is imbedded backwards into the sounds of our speech. This previously undiscovered function of the mind is the mind's own independant [sic] voice speaking from the deepest regions of consciousness ... forward speech is from the left brain and Reverse Speech is from the right brain.

Mr. Oates claims to have made many discoveries, including that children learn to speak backwards before they learn to speak forwards. He believes that what most of the world has taken to be babbling is actually deep thought from the unconscious minds of infants

Oates is an Australian who calls himself Reverse Speech Enterprises™. He started on his road to discovery by dropping a tape recorder in the toilet while shaving. He "fixed" the recorder, but henceforth the recorder would only play in reverse. However, this electronic incompetence was not without its rewards. He was ready, he says, when teenagers asked him about backwards Satanic messages in rock music. He could play tapes for them and search for the hidden messages. The rest, as they say, is history. Oates not only found Satanic messages in rock music, he found that if one listens very carefully, one can hear reverse messages in every bit of communication that uses words. For twelve years he labored at uncovering the secret of reverse speech. Now

he is ready to share his discoveries with the rest of the world--for a price.

Mr. Oates has immigrated to Bonsall, California, where he offers to train anyone to be a reverse speech analyst for a mere \$4,500, plus a few hundred more for a Reversing Machine™, several tapes, and a study guide which must be purchased separately. (He's now back in Australia, still charging [hefty fees for his courses.](#))

Mr. Oates sells tapes for about \$10 each with examples of reverse speech from O.J. Simpson, rock music stars, celebrities, and politicians. He also sells books with catchy titles like Beyond Backward Masking: Reverse Speech and the Voice of the Inner Mind (which, in reverse, sounds something like Dante Rentifor: anchovy tulip server by Stone Adjective). This book has an appendix on UFOs, as well.

Oates claims that "reverse speech is the voice of truth" and "If a lie is spoken forwards, the truth may be spoken backwards....It can be used as a truth detector. It will reveal the truth if a lie is spoken and it will reveal extra facts if they are left out, for example, the name of an accomplice in crime or the location of evidence." This claim is reminiscent of certain advocates of [neurolinguistic programming](#) who claim they can tell when a person is lying by that person's eye movements. At least with Oates we can avoid detection by speaking only in palindromes.

He also claims 95% of our thoughts are "are below consciousness" and

reverse speech can describe unconscious subjects such as personality patterns and behavioral agenda, it can reveal hidden memory and experiences, and it can also describe the state of the physical body. At the deepest levels of human consciousness, Reverse Speech also describes the state of the human soul and our relationship with God.

He also claims most reverse speech is metaphorical and is communicated in pictures or parables, "similar to dreams."

Furthermore, reverse speech analysis

...can be used as a therapeutic tool for psycho analysis [sic]. Its metaphors will give a detailed map of the mind and often pinpoint precise reasons and cause [sic] for problems experienced. Used in conjunction with hypnosis it can be used as an extremely powerful and permanent [sic] form of behavioral change.

Employers can use it for employee selection, lawyers for deposition analysis, reporters for politicians [sic] speeches. Its applications are endless.

As with his other claims, Oates provides no support for these notions. However, there is considerable evidence against him.

Some of his claims are empirical and can be checked against what neuroscientists and physiologists have discovered in their study of the brain and speech development. For example, his notion about reverse speech occurring in the right brain is not supported by empirical study. In any case, if the right brain were a source of reverse speech functioning, as Mr. Oates claims, one would expect to see brain activity in the right brain just prior to the activity in the left brain when speech occurs. Where is the evidence that this happens? And where is the evidence for his claims about infants and speech, claims which contradict everything that is known about the development of the human brain and speech in children? To believe Mr. Oates is to reject science or, at the very least, it is to reveal one's ignorance about some fundamental neurological and physiological facts.

One must also wonder what evolutionary value reverse speech would have. It is estimated that it was about 100,000 years ago that humans developed spoken language. One has no difficulty in seeing the utility of speech to the survival of the species. But what possible utility could there be in reverse speech? It is difficult to imagine something so useless taking up a good portion of the history of the evolving brain. Furthermore, if there is a reverse speech, there must be a reverse speech grammar. What is it and how is it known?

Some of Oates' claims are quasi-empirical. For example, his beliefs about the unconscious mind seem to have an empirical grounding in the fact that a person's behavior can be affected by memories of which the person is unconscious. There is substantial evidence of implicit memory in the neuroscientific literature. But the claim that 95% of our thoughts are below the level of consciousness--which implies that most of our memories are implicit memories--seems non-falsifiable. How would one test such a claim? The claim that the unconscious mind contains data which reveal hidden truths about a person's behavior and personality, as well as one's physical and spiritual health, is highly questionable. It seems to be based on wishful thinking rather than scientific evidence.

Nevertheless, Mr. Oates gives some specific examples of how his theory works. For example, he claims that when Bill Clinton says "I try to articulate my position as clearly as possible" he really means "She's a fun girl to kiss." How does Oates know this? He "knows" this because that is how it sounds to him in reverse, or that is what the metaphors mean. We cannot prove him wrong. If it does not sound like that to us or if we don't grasp the metaphors, it

is because the messages "are very quick and fast and are often hidden in the high tones of speech. For this reason speech reversals are very easily missed by most researchers." Furthermore, he says the untutored are not familiar with the language of metaphor. (He has two books that can help us here.) These are not [ad hoc hypotheses](#), according to Oates. Furthermore, once he has told you that the reverse speech you are about to hear is "She's a fun girl to kiss", you are likely to "hear" that, regardless of how garbled the message sounds. Call it the power of suggestion or [pareidolia](#) for the ears. Call it anything but worth investigating much further. If Mr. Oates went on Larry King or Oprah and claimed that their speech revealed that they were actually child molesters, Oates would have no audience and people would recognize him for what he is. Yet, he will be taken seriously when he says that Patsy Ramsey's forward speech "We feel that there are at least two people on the face of the earth that know who did this [i.e., murdered her daughter] and that is the killer and someone else that person may have confided in" is actually reverse speech for "I'm that person. Seen that rape." (On December 26, 1997, Oates had his first daytime TV appearance on the Geraldo show discussing the Ramsey case.) Oates is taken seriously because he is an entertaining novelty feeding the lust for trash gossip which passes as news and information in our society.

The academic world has so far ignored his great discoveries, though he claims that he has the support of some academics who fear to speak out. Mr. Oates bemoans his fate: "Have we not yet learned from the lessons of history? Many of our great discoveries have come from outside of mainstream [sic]. Einstein, for example, was a high school-drop out." (Actually, Einstein was kicked out of high school and eventually finished his schooling in Zurich, including a Ph.D. from the University of Zurich.) His proposals to test his theory have been rejected by universities not because the university establishment is closed-minded, but because Oates' theories belie a profound ignorance of fundamental matters in neuroscience and physiology. Furthermore, a good chunk of his theory is untestable metaphysics, psychobabble and gobbledygook.

Mr. Oates resembles a person who is modeling himself after Bandler™ and others in the [neurolinguistic](#) programming movement. They have found that self-confidence and the ability to understand is so diminished in so many people that the more unintelligible a person's communication is the more likely it becomes that that communication can be trademarked and profitably marketed as a gateway to the secret of life.

See related entry on [backwards satanic messages](#).

further reading

[reader comments](#)

- [The Demon-Haunted Sentence A Skeptical Analysis of Reverse Speech](#) by Tom Byrne and Matthew Normand
- [David Oates' Theory of Reverse Speech](#) by Mark Newbrook & Jane Curtain
- [REVERSE SPEECH](#) by John Shirley
- [Welcome to The World of Reverse Speech](#)
- ["My UFO Experience"](#) by David Oates

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Aleister Crowley (1875-1947)



Crowley was a self-proclaimed drug and sex "fiend", i.e., a person of great wickedness; a mostly self-published author of books on the occult; a poet and mountaineer; a leader of a cult called [Ordo Templi Orientis \(OTO\)](#) whose tenets he detailed in one of his many writings, *The Book of the Law*, which contains his version of [the Law of Thelema](#). Crowley claimed he [channeled](#) the book for a "praeterhuman intelligence" called Aiwass.

Do what thou wilt shall be the whole of the Law is his motto for OTO. In practice, for Crowley this meant rejecting traditional morality in favor of the life of a drug addict and womanizer. ("I rave; and I rape and I rip and I rend" is a line from one of his poems. *Diary of a Drug Fiend* is the title of one of his books.) He claimed to identify himself with the [Great Beast 666](#) (from the *Book of Revelation*) and enjoyed the appellation of "wickedest man in the world." He had two wives; both went insane. Five mistresses committed suicide. According to Martin Gardner, "scores of his concubines ended in the gutter as alcoholics, drug addicts, or in mental institutions" (Gardner, 198). However, Crowley should not be blamed for destroying the virtue of saintly young girls. His allure was such that the women who were attracted to him tended already to be alcoholics, drug addicts or emotionally disturbed. His allure seems to have consisted of two main qualities: he inherited a fortune and he worked hard at being strange.

Crowley's *Magick in Theory and Practice* is a very popular book among occultists. When Dover publishing was about to release a reprint of the book in 1990, an editor asked Martin Gardner to write a foreword for the reprinting. The 1976 Dover edition had been one of their best sellers. Gardner was an unlikely choice to write the foreword for Crowley's book since he had already written that Crowley was a no-good fraud in his classic *Fads and Fallacies in the Name of Science*. Gardner wrote the foreword and painted a picture of such a cruel, despicable, egotistical mountebank that Dover decided not to reprint the book. The foreword has been published in Gardner's *On the Wild Side*.

Crowley has had little influence on anything significant except perhaps the popularity of putting [backwards messages](#) into musical recordings. The occultist guitarist for Led Zeppelin, Jimmy Page, owns a large collection of Crowley memorabilia and bought Crowley's mansion, Boleskine House, near Foyers, Scotland. Crowley's face is also one of many on the album cover of the Beatles' *Sergeant Pepper's Lonely Hearts Club Band*. While occultists

such as Page are said to have put backwards "satanic" messages into recordings such as "Stairway to Heaven" ("Here's to my sweet Satan"), the Beatles used backwards musical riffs in some of their recordings, apparently more for the musical effect than as an expression of their admiration of Satan.

Says Gardner: "His reputation had been that of a man who worshipped Satan, but it was more accurately said that he worshipped no one except himself."

See related entry on [magick](#).

further reading

[reader comments](#)

- [Mr. Crowley's Neighborhood](#)
- [The Great Beast Speaks](#)
- [OTO](#)
- [The Ordo Templi Orientis U.S. Grand Lodge](#)
- [The Abbey of Thelema](#)
- [The Golden Dawn FAQ](#)
- [AtomJack's Crowley Page](#)

[Crowley, Aleister. *The Confessions of Aleister Crowley : An Autohagiography* \(Arkana, 1989\).](#)

[Gardner, Martin. *On the Wild Side* \(Amherst, N.Y.: Prometheus Books, 1992\), chapter 29.](#)

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reader comments:

backwards satanic messages

07 May 2000

Reading your section on backmasking reminded me of my teenage experiments with backmasking... since the advent of sound cards, scanning songs into a .wav file and using a tool to reverse them is easy. There is a LOT more backmasking out there than most people realize. Intentional, and usually humourous. The example often quoted is the Floyd backmasking in Empty Spaces, which for clarification from the other comments, contains this amusing message just before the lyrics start:

"Congratulations! You have just discovered the secret message. Please send your answer to Old Pink, care of the Funny Farm, Charlesfort."

In response to Mr. Starr's comments about the other Floyd song, the song is "Several Species of Small Furry Animals Gathered Together in a Cave and Grooving with a Pict", on the second disk of 1969's "Ummagumma". The entire song is nothing but Roger Water's voice recorded saying a variety of things and having them sped up and slowed down to sound like chattering chipmunk creatures. I never found anything backwards in it, and deciphering it is difficult. One piece that can be heard is a reverbed, highly sped up voice (not backwards) just before the "pict" begins his story in an almost incomprehensible Scottish brogue. It says "That was pretty avant-garde, wasn't it?". It should be noted the second disk of "Ummagumma" was nothing but each of the 4 members being given half a side to fiddle around and do anything they felt like, and Roger was just having fun with that new, sexy late 60's recording gear.

The quote often attributed to Stairway to Heaven occurs during the phrase "Yes there are two paths you can go down, but in the long run there's still time to change the road you're on." Supposedly, backwards it says "It's my sweet Satan, the one whose little path would make me (sad/mad/glad?) whose power is Satan." Yes, if someone tells you about it and points it out, it's quite clear. Especially the "One whose little path" part, sometimes said to say "One who made the path". Nobody in their right mind would attempt to suggest that this was intentional. It's certainly NOT clear enough to hear without coaching. The lyrics and music forwards are clear, intelligible and not garbled in any way to make them take on this meaning backwards. Just an odd coincidence.

Examples of real backmasking include the beginning of "Rocket" on the Def

Leppard album "Hysteria" ("We're fighting with the gods of war", a line from a later song on the album), ELO's song "Fire on High" which contains voices backwards that say "The song is reversible! Is not! Turn it back, turn it back!", Ozzy Osbourne's "Bloodbath in Paradise" in the intro music says "Your mother sells whelks in Hull" backwards (a personal joke, he later mentioned), the last track on Prince's "Purple Rain" which contains the message "Hello. How are you? I'm fine, 'cause I know the Lord is coming soon, coming, coming soon.", and Cheap Trick's "How Are You?" which includes a female reciting the Lord's Prayer on a tape being rewound at high speed in the right channel. There are dozens more. They are all quite clearly some form of backwards or garbled speech when the song is listened to normally.

Examples of backmasking one would have to be very inventive to hear include the message "Marijuana, marijuana, marijuana is fun to smoke" in Queen's "Another One Bites the Dust", "We shot John Lennon" in Yoko Ono's "Kiss Kiss Kiss", "Son of Satan, son of Satan" in Jefferson Starship's "A Child is Coming", and "Yes, Satan had help, he organized his own religion" in The Eagles' "Hotel California". None of these are even remotely clear, and unlike Stairway, are almost impossible to hear even with coaching. It's obvious that puritanical-minded folks who are attempting to convey the evils of rock and heavy metal music with these claims... oh, and those who hate Yoko. :)

Putting backwards or otherwise garbled messages in song is an old and favourite trick of many musicians. It's not for some devious purpose or an attempt to influence the listener subliminally. Usually, it's a joke... sometimes, something done just for fun, and on rare occasion (such as Prince's song) a testimony of faith or delivery of a message... Roger Water's "Amused to Death" contains backwards speeches and news broadcasts throughout, for instance, used to reinforce the message of the album. In all cases where it was placed intentionally into the music, the backwards messages form background noise and not any comprehensible lyrics when heard forwards, and with a little experience backwards messages will jump out at you. Scan it in and reverse the .wav - I guarantee 9 times out of 10 it will give you a laugh.

I'm aware the comments aren't a forum, so I didn't want to include this in my informational message, or the comments section... I don't know WHAT Starr was talking about with that laser audio graphic imaging or whatever, but that fellow deeply disturbs me. I love his stuff about audio tones corresponding to exact color hallucination while under the influence of LSD, "scientifically". One note, yes, if someone puts a vibrating pager or other monotone sound and waves it around in front of your closed eyes, you can figure out what they're spelling, but that's due to our ability to hear in three dimensions, which an album can only duplicate if the listener makes pains to set up their system correctly and a special recording method is used (eg. Roger Waters's "Pros and Cons of Hitchhiking", which has sound effects of buzzing flies and so on that are eerily real when listened to on headphones).

All I can say, is when I was much younger than I am now, I did LSD around

200 times... I bet I listened to "The Wall" and other Floyd albums damn near every time, and never did I see a pink laser pen writing secret messages in the air or on the back of my eyelids. I only wish. :) And "Several Species" doesn't sound any clearer drunk, stoned or otherwise incapacitated. To think someone so obviously disturbed and paranoid working with and "educating" the nation's youth gives me a sick feeling in the pit of my stomach.

Chris Walsh

30 May 1999

Please excuse the last letter if it was not fully clear, but this letter clarifies a few points.

reply: The last letter is not much different from the "clarification", so I have not reprinted it here.

I know you are a busy man so I will make this brief.

My references are available if you find the following worth checking out.

I run a ministry called "Christ's Ministry for Freedom" that publicizes not only backmasking but also more sophisticated forms of recording hidden information and the delivery there of to the human mind for the specific purpose of manipulating the human mind to decisions and beliefs that it would not have normally encountered, been exposed to or held in the minds normal course of editing within its realm of freewill.

I know you want hands on evidence so I will give you a backmasking that is so plain that it is undeniable and it has never been published. If you find it credible then I will show you in the album and others where it is possible that whole books of information are being delivered to the subconscious during one song once a simple key or code has been learned by the mind. It is all documentable and there now in Pink Floyd "The Wall".

During the song, "What shall we use to fill the empty places", you will hear a very hypnotic beat going back and forth from left to right, building in thrust. During this song listen and you will hear the garbled backmasking in the background and if you listen to it backwards it will be a man saying, "Send all answers in care of ole' Pink to (then the address is given but it is distorted and stops)".

This backmasking message is in reference to the info being feed through the other means, such as audio laser graphic imaging or audio holographic imaging. Through this info a psychological game is introduced to the listeners mind that has the victim searching for an answer to a game introduced by the

computer programmer. The address to send the answer to, in the backmasked, is garbled as a cruel joke.

Sound crazy, try me.

Also, look at another album by Floyd, I believe "Metal" and listen to "four small furry animals" and it will sound like someone speaking in tongues, backmasking or just garbled speech. But, if you listen closely, the speech is swirled. Imagine if you were inside of a tornado looking at the swirling wind around you. This is how the speech is recorded so that when you are on drugs or drunk and your mind can be brought into that light-headedness mind swirl you can actually understand the speech. And remember, even if someone is on drugs, they are still Gods children and he wants them set free!

Another method of relaying info is in "The Wall" by Floyd. Listen to the whole album and any time you hear what sounds like a "laser" "buzzing" sound, such as a pager on its vibrate mode being waved around in the air in front of your closed eyes, that moves around in a swirling motion, or circular motion, you have discovered what I call audible "laser graphic imaging". If you use a computer to trace out the motion of this "laser" pen point, writing cursively in the air, you will find that it is not moving around in random circles, but is actually tracing out cursive words in the air. Specifically the title to the album, "Pink Floyd, The Wall" at one point. Once your mind learns how to follow this laser pen in the air you can follow what is being written. Add LSD and you will hallucinate, scientifically, certain colors to specific tones and the tracers will illuminate the laser pen writing in the air in a visible colored "pink" cursive hand writing. Remember, in one song Floyd states "for I have seen the writing on the Wall" and that is exactly what I propose is happening. Books of info is being transferred to the listeners. (Have a person take a pager on its vibrate mode and spell out words in front of your closed eyes and you will be able to pick up on the words being spelled out)

Yes, what I am suggesting is that there can be a holographic album recorded within an audible album. And whatever info is being delivered without the hearers knowledge is limited to the COMPUTER PROGRAMMERS beliefs, values, etc...

I will save the rest of the info for your response. I would ask that you not publish the specific songs and albums yet in that people would expose themselves to this manipulative material and I have not completely gave you everything involved. I believe that if you have any one you know involved in the music industry that can use a computer to analyze music it should not be hard to validate what I have given you here.

I await your answer. Once you have validated my material, I can take you further into a computerized Satanic trip recorded underneath and through the audible music, but with more advanced technology. My purpose is that I am

developing a deprogramming counseling program to deliver people out of the "game" that is placed within their mind through Floyd's albums.

If it sounds crazy, please check out the leads listed and then my references which are available upon request. I hope you are a true scientific critic, for I love the scientific method. Hopefully by challenging you with the scientific method to validate my research, you will use your contacts that have the expensive equipment to validate my findings, save me money and get you a good story and my research out.

In the end, my goal is for a Christian organization that analyzes new and old albums and video's for hidden technical material, not just backmasking, to protect the rights of the individual to be free from coercive methods of recording. Especially entering into the 21st century with all the new technology and the lagging behind, and also lack thereof, of moral and religious ethics and principles.

Check it out and God Bless,
Scott Starr

References from juvenile probation, wilderness program, high school "troubled class" security coordinator, upon request.

reply: Children, avoid *Christ's Ministry for Freedom* and Mr. Starr at all costs. I have no idea why Mr. Starr sent this to me instead of to Art Bell. It frightens me that someone whose brain is in an unknown gear might be working with juveniles.

9 Aug 1999

That was a very interesting letter from Scott Starr regarding subliminal messages in music. He begins by pointing out the Pink Floyd message (which I already mentioned in an earlier letter, further down on the same page), but then goes on to describe how the same album contains holographic writing in the sound effects.

This guy is obviously a left-wing wingnut, and you're right to tell folks to steer clear of him. But don't be so quick to dismiss his "writing" claim. New technologies such as Dolby Surround Sound, AC-3, DTS and Q-Sound are allowing sound engineers to mix audio tracks in such a way as to make sounds appear to emanate from specific locations. So, in theory, it could be possible to "write" a message, similar to the way he describes it. He may have just invented the new 90's version of backwards masking.

There's only a few problems with his theory.

First of all, those technologies were not available when Gilmour and Waters recorded "The Wall", and even if they were, the album isn't published in a format that would allow that sort of playback. It's just in stereo, not in surround sound. I'm a musician, and I know the sort of equipment that was used to record that album. They got those effects using leslies, flangers, delays, tape reversals, and manual panning. None of those techniques allows an engineer to place the audio into a 3-D space. They give a wonderful stereo swirling sound, but only between two channels. So although Scott is discussing an interesting theory, he's used a terrible example.

Secondly, he claims that you can "see" the images of these writings. Tell me, have you ever played the game where you use your finger to draw an image or word on someone's back, then they try to guess what you just drew? It's very difficult to visualize anything that way, let alone something as complex as cursive writing. The audio imaging would be even less distinct to the listener than the back-drawing game. Even if you could pick out the exact locations of each sound, it would be difficult to see any sort of a pattern to the writing. He seems to imply that taking drugs would help, and I don't doubt that taking certain drugs could make you "see" things...

Finally, as with backwards masking, there is no mechanism by which this hidden information could affect the listener. It's assumed that a subliminal message in an audio track could somehow worm its way into the subconscious of the listener, but there's no proof that this can happen. If you can't hear or understand the subliminal information even when you're actively listening for it, then how can it affect your subconscious mind?

Still, it's a fascinating concept. Artists could put written messages into their recordings, and the messages could be decoded with the proper software. It would be like a high-tech version of backwards messages, with many of the same features: There would be deliberate versions, where the artist inserts some kind of satirical message into the sound effects. Then there would be the accidental versions, caused by random combinations of audio effects. People would try to find the messages hidden in the random ones, coming up with results that, like the backwards masking, say more about the listener than about the artist.

Tony Fabris

18 Aug 1999

I'd like to add some information about Scott Starr's comments on backwards satanic messages. Indeed his belief that the band Pink Floyd put backwards messages in their music is justified. As you mention in your own article, several musicians in the 60s/70s started doing this, and Pink Floyd - who I'd loosely describe as experiential [?] musicians with a sense of humour - were no exception.

What I find interesting is that Scott Starr may not have even heard the backwards messages that he is talking about, since the information he supplies is only partially correct.

The first item he refers to is a message in a song from the album "The Wall". The song is actually called "Empty Spaces", and the backwards message is clearly planted there to parody the whole backwards message idea! The full text of the message, which is a recording of band bassist and chief songwriter Roger Waters, goes like this:-

Roger:

*"Congratulations, You have just discovered the secret message.
Please send your answer to old pink, care of the funny farm,
Chalfont"*

Another voice:

"Roger, Carolyn's on the phone!"

Roger:

"Okay!"

There is nothing sinister here. There are various interpretations of who "old pink" is (supposedly original band member Syd Barrett, who became mentally unstable) but that's hardly satanic. If Scott or anyone else would like to hear the backwards message, it is available all over the web, including at this URL:

<http://members.aol.com/ZyboMan/backward/indexnet.html>

As for the second example given by Scott, I assume the album he refers to when he says "Metal" is the 1971 album titled "Meddle". However, the song he mistakenly refers to as "four small furry animals" (actual title is "Several species of small furry animals gathered together in a cave and grooving with a pict") is not on the Meddle album at all, but from an earlier release called Ummagumma. While the track in question is certainly an unusual piece, there is nothing particularly satanic about it. In fact, the title actually describes the piece quite accurately. The so-called "speaking in tongues" is just someone with a particularly heavy Scottish(?) accent raving almost incoherently. (An attempt to decipher the gibberish is also available at the above web address). There is no backmasking here. The "swirling" noise Scott refers to is a simple analog reverb unit (it was recorded in 1969). The band played a lot with sound effects. This is just one example of such experimentation.

I cannot comment on Scott's "laser graphic imaging". Certainly this is the first I've ever heard of it.

While I'm sure this information will not change the minds of people such as Scott, he could at least research what it is he's condemning. A simple web

search for "Pink Floyd" and "backwards message" reveals a plethora of web sites.

Keep up the good fight,
Chris Solnordal

22 Sep 98

I just read the entry on backwards lyrics in rock music and remembered the following, which I thought you might enjoy.

A few years ago I was at a concert featuring the very fine singer Laura Love. Introducing a song called "The Devil Inside," she confessed to the audience that, "If you play it backwards on your turntable, it says 'Attend church regularly.'"

Eric Brody

17 Dec 1996

Are you sure backwards messages of any kind are in "Stairway to Heaven", or is that one of those sneaky little tacit assumptions that has managed to slip through? [kinda like a lie repeated newt style becomes believable...]

Years ago when I was involved doing Planetarium Laser shows for Laserium, <http://www.laserium.com>, in Pittsburgh at the time, someone on the staff was slightly weirded out at our choice of "Stairway to Heaven" in a Laser Show, because members of his church had heard the dreaded "backwards satanic messages" demonstrated to them by pushing an LP backwards...needless to say, I said far out, let me hear it, or something like that, and took the staff member along for my version of a demo on the planetarium mega sound system after hours. The show tapes were dubs [analog in those days] a few generations directly downstream from the record company masters [Laserium paid royalties for this privilege], and being four channel format [teac a3340s], could be easily reversed. What a disappointment...nada, nothing, no whispers of anything...several playings later we were rolling on the floor laughing, besides the revelation [ha--what a word] it was funny as heck listening to music backwards. This evolved to "after hours backward music gatherings"---disco is indeed improved when played backwards.

Anyhow, long story for the punchline: I would suspect that if anyone has heard backwards messages in "Stairway to Heaven" they are either imagining or somebody further up the chain of their particular church/cult/organization is mixing in something to a demo tape, just to keep the faithful hopping or hoping.

Thoroughly enjoyed my visit to the Skeptic's Dictionary....appreciate the level-

headed approach.

Hans

reply: As you have probably figured out by now, I'm not sure of anything. Maybe if Laserium paid more royalties they might have gotten the bonus messages! Anyway, I think you'll have to ask Martin Gardner; I understand he listens to Jimmie Page in his spare time. Or better yet, read the next letter.

26 Dec 1996

I love the Skeptic's Dictionary. I wanted to comment on the section referenced by the subject "backward (satanic) messages". One of your readers commented:

"Are you sure backwards messages of any kind are in "Stairway to Heaven", or is that one of those sneaky little tacit assumptions that has managed to slip through?"

He continued to describe trying to actually find the alleged backwards section, and was unable to. He asserts that the backwards section of Stairway to Heaven does not exist. I'm not surprised he didn't find it, for reasons I will explain below. But the backwards section does exist.

Well, It does exist and it doesn't. It does exist because there -is- a section of the song, where if you listen to it backwards, and you strain really hard, and somebody points it out to you ahead of time, you can almost hear Plant saying "Here's to my sweet satan". Problem is, it's not deliberately inserted, it's not very intelligible, and it's a purely coincidental assemblage of syllables that results from playing the normal, sung lyrics in the wrong direction. I forget which exact line of the song it occurs on, but if you listened to it, you'd understand why it's pure coincidence. (I'm pretty sure it was this line: "There's still time to change the road you're on.")

Now. Here is why I say it -doesn't- exist: When I was in high school, a local radio station played a few tapes of alleged backmasking, and the "Stairway" snippet was part of the show. They had the "forward" phrase and the "backward" phrase played a couple of times. I taped this section off of the radio, and played the "backward" phrase to several people. The catch: I didn't tell them what it was "supposed to" say. I played it several times, and -no one- was able to discern any intelligible english words from it. -Then- I told them what it was supposed to say, and then they said "oh yeah, I can hear that. Yeah, ok."

My point is this: There are two kinds of alleged "backmasking" in recording. One is the deliberate kind where there is obvious backwards stuff buried in the mix. Play it forward, and you hear a normal recording of a normal voice

speaking words. And example of this deliberate backmasking is on Pink Floyd's The Wall, where there is a humorous message about finding some secret, and writing to Floyd Pink care of The Funny Farm (or something like that).

The other kind of alleged backmasking is the "accidental" kind, like in Stairway to Heaven. The songwriter did not deliberately write lyrics so that they say intelligible phrases in both directions. It's hard enough just writing lyrics that work in one direction. Anyone finding backwards messages in those lyrics is finding them because they're -looking- for them. If you squint hard enough, you could find backwards messages in the Gettysburg Address, for God's sake. The funny thing is, the Christians like to hunt for backwards things that sound like "Satan" in rock records and then run with it. But you could find as many occurrences of a backwards "Satan" in gospel hymns, because, as I assert, the message is coincidental. For that matter, you could probably find as many occurrences of "Jesus is lord" as "Here's to my sweet satan" in any recording. If you squint.

I'm not saying Page and Plant -didn't- put deliberate backwards stuff in other songs. They probably did. But in "Stairway to Heaven" the backwards message, while present, is completely coincidental.

I wish I remembered the exact phrase so you could hear it yourself. These days it's so easy to sample a phrase from your CD-ROM then "flip" it in Sound Recorder. Anyone who's already done this might want to post it on his Web site for all to see...

Tony Fabris

12 Jun 1997:

I have never heard the fundamentalists explain a mechanism by which backwards satanic messages are supposed to do their dastardly work. Without a mechanism, quite apart from all the other objections, the claim is a nonsense. Do they corrupt the innocent listener by stealth as he listens frontwards? Or are satanists supposed to gather in little covens to play their music backwards? When I first heard of this 20 years ago, there was no widely accessible technology which could play music backwards; we tried placing the stylus on a record and rotating the platter backwards with a finger. The results were hilarious rather than sinister and the consensus was that we were ruining the LPs.

You might like to track down the transcript of a court case a few years ago in which the heavy metal band Judas Priest was unsuccessfully sued by the family of a teenage fan who died in a suicide pact with a friend. (The friend lived, albeit literally defaced by a shotgun blast.) My only knowledge of the case comes from a TV documentary, but as I recall it was somewhere in the

American Mid-West.

The cameras were allowed in the court, where jurors spent much time listening intently to backwards music attempting to hear some alleged satanic phrase, and the lead singer sang in the witness box to demonstrate some glottal-stop artefact in his singing style which apparently featured in the naughty bit. Then the sister of the dead boy took the stand; she was hot, she was angry, and she had no doubt it was their music which caused him to kill himself. She, on the other hand, listened to that wholesome country music.

But then the defence raised the little matter of her own history of suicide attempts, which she had no choice but to confirm under cross-examination, visibly stunned that they even knew of it. Case dismissed. Country music, now, there's a reason to top yourself - all that yowling steel gitter and those laments that my dog died and my woman left me. But I digress...

**Nigel Malthus,
Christchurch, New Zealand**



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ball lightning



Ball lightning is described as a luminous sphere which seems to appear out of nowhere and vanish into thin air. It varies in size from two to ten inches in diameter. It usually is seen shortly before or after, or during, a thunderstorm. Its duration varies from a few seconds to a few minutes. "The lifetime of ball lightning tends to increase with size and decrease with brightness. Balls that appear distinctly orange and blue seem to last longer than average....Ball lightning usually moves parallel to the earth, but it takes vertical jumps. Sometimes it descends from the clouds, other times it suddenly materializes either indoors or outdoors or enters a room through a closed or open window, through thin nonmetallic walls or through the chimney."*

Some have speculated that ball lightning is a plasma ball, but that theory has been dismissed because a "hot globe of plasma should rise like a hot-air balloon" and that is not what ball lightning does. Many physicists have speculated that ball lightning must be due to electrical discharges. For example, Russian physicist Pyotr Kapitsa thinks ball lightning is an electrodeless discharge caused by a standing UHF waves of unknown origin present between the earth and a cloud.* According to another theory, "outdoor ball lightning is caused by an atmospheric maser-- analogous to a laser, but operating at a much lower energy--having a volume of the order of many cubic kilometers."*

Two New Zealand scientists, John Abrahamson and James Dinniss, believe ball lightning consists of "fluffy balls of burning silicon created by ordinary fork lightning striking the earth."

According to their theory, when lightning strikes the ground, the minerals are broken down into tiny particles of silicon and its compounds with oxygen and carbon. The tiny charged particles link up into chains, which go on to form filamentary networks. These cluster together in a light fluffy ball, which is borne aloft by air currents. There, it hovers as ball lightning, or a burning orb of fluffy silicon emitting the energy absorbed from the lightning in form of heat and light, until the phenomenon burns itself out.*

Ball lightning has been observed since ancient times and by thousands of people in many different places. Most physicists seem to believe that there is little doubt that it is a real phenomenon. But there is still disagreement as to what it is and what causes it.

further reading

- [FutureFrame](#) - Feb 4, 2000
- [Ball Lightning Experiments Produce UFOs](#) May 26, 1999
- [Scientific American](#)
- [Great Moments in Science](#)
- [sci.geo.meteorology](#)
- [International Conference on Ball Lightning](#) August 1999
- [The Ball Lightning Page](#)
- [ball lightning reports](#)
- [ball lightning](#)
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- [ball lightning](#)
- [DigitalCity](#)
- [ChukanovEnergy - Quantum Energy!](#)
- [Ball lightning bibliography](#)

[Prenn, U.L. *Introduction to Ball Lightning : Rare Events* \(Systems Co., 1991\).](#)

[Stenhoff, Mark. *Ball Lightning : An Unsolved Problem in Atmospheric Physics* \(Kluwer Academic Publishers, 2000\).](#)

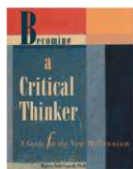
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[begging the question](#) 



begging the question

Begging the question is what one does in an argument when one assumes what one claims to be proving.

An argument is a form of reasoning whereby one gives a reason or reasons in support of some claim. The reasons are called premises and the claim one tries to support with them is called the conclusion.

If one's premises entail one's conclusion, and one's premises are questionable, one is said to beg the question.

The following argument begs the question.

We know God exists because we can see the perfect order of His Creation, an order which demonstrates supernatural intelligence in its design.

The conclusion of this argument is that God exists. The premise *assumes* a Creator and Designer of the universe exists, i.e., that God exists. In this argument, the arguer should not be granted the assumption that the universe exhibits intelligent design, but should be made to provide support for that claim.

The following argument also begs the question.

Abortion is the unjustified killing of a human being and as such is murder. Murder is illegal. So abortion should be illegal.

The conclusion of the argument is entailed in its premises. If one assumes that abortion is murder then it follows that abortion should be illegal because murder is illegal. Thus, the arguer is assuming abortion should be illegal (the conclusion) by assuming that it is murder. In this argument, the arguer should not be granted the assumption that abortion is murder, but should be made to provide support for this claim.

The following is another example of begging the question.

Paranormal phenomena exist because I have had experiences that can only be described as paranormal.

The conclusion of this argument is that paranormal phenomena exist. The

premise assumes that the arguer has had paranormal experiences, and therefore assumes that paranormal experiences exist. The arguer should not be granted the assumption that his experiences were paranormal, but should made to provide support for this claim.

Here is a final example of begging the question.

Past-life memories of children prove that past lives exist because the children could have no other source for their memories besides having lived in the past.

The conclusion of this argument is that past lives exist. The premise assumes that children have had past lives. The arguer should not be granted the assumption that children have had past lives but should made to support the claim. (Saying the memories could have no other source than a past life is to assume that past lives exist. This should not be granted but argued for.)

further reading

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 [the "Carlos" hoax](#)

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cartomancy

Cartomancy (literally, *divination from cards*) is a type of fortune-telling by reading cards such as the [tarot](#).

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[Is handwriting
analysis legit science?
April 18, 2003 - The
Straight Dope](#)

graphology

Graphology is the study of handwriting, especially when employed as a means of analyzing character. Real handwriting experts are known as *forensic document examiners*, not as *graphologists*. [Forensic \(or questioned\) document examiners](#) consider loops, dotted "i's" and crossed "t's," letter spacing, slants, heights, ending strokes, etc. They examine handwriting to detect authenticity or [forgery](#).

Graphologists examine loops, dotted "i's" and crossed "t's," letter spacing, slants, heights, ending strokes, etc., but they believe that such handwriting minutiae are physical manifestations of [unconscious mental functions](#).

Graphologists believe such details can reveal as much about a person as [astrology](#), [palmreading](#), [psychometry](#), or the [Myers-Briggs](#) personality type indicator. However, there is no evidence that the [unconscious mind](#) is a reservoir of truth about a person, much less that graphology provides a gateway to that reservoir.

Graphology is claimed to be useful for everything from understanding health issues, morality and past experiences to hidden talents and mental problems.* However, "in properly controlled, blind studies, where the handwriting samples contain no content that could provide non-graphological information upon which to base a prediction (e.g., a piece copied from a magazine), graphologists do no better than chance at predicting... personality traits...." ["The Use of Graphology as a Tool for Employee Hiring and Evaluation," from the [British Columbia Civil Liberties Association](#)] And even non-experts are able to correctly identify the *gender* of a writer about 70% of the time (Furnham, 204).

There are a variety of techniques used by graphologists.* Even so, the techniques of these "experts" seem to be reducible to impressions from such things as the pressure exerted on the page, spacing of words and letters, crossed t's, dotted i's, size, slant, speed and consistency of writing. Though graphologists deny it, the *content* of the writing is one of the more important factors in graphological character assessment. The content of a message, of course, is independent of the handwriting and should be irrelevant to the assessment.

Barry Beyerstein (1996) considers many of the notions of graphologists to be little more than [sympathetic magic](#), e.g., the notion that leaving wide spaces between letters indicates a proneness to isolation and loneliness because the wide spaces indicate someone who does not mix easily and is uncomfortable with closeness. One graphologist claims that a person betrays his sadistic

nature if he crosses his t's with lines that look like whips.

Since there is no useful theory as to how graphology might work, it is not surprising that there is no empirical evidence that any graphological characteristics significantly correlate with any interesting personality trait.

Adrian Furnham writes

Readers familiar with the techniques of [cold reading](#) will be able to understand why graphology appears to work and why so many (otherwise intelligent) people believe in it. [p. 204]

Add to cold reading, the [Forer or Barnum effect](#), [confirmation bias](#), and [communal reinforcement](#), and you have a fairly complete explanation for graphology's popularity.

Graphology is another pipe dream of those who want a quick and dirty decision making process to tell them who to marry, who did the crime, who they should hire, what career they should seek, where the good hunting is, where the water, oil, or buried treasure is, etc. Graphology is another in a long list of quack substitutes for hard work. It is appealing to those who are impatient with such troublesome matters as research, evidence analysis, reasoning, logic and hypothesis testing. If you want results and you want them now and you want them stated in strong, certain terms, graphology is for you. If, however, you can live with reasonable probabilities and uncertainty, you might try another method to pick a spouse or hire an employee.

If on the other hand, you don't mind discriminating against people on the basis of pseudoscientific non-sense, then at least have the consistency to use a [ouija board](#) to help you pick the right graphologist.

See related entries on [crystals](#), [palmistry](#), the [polygraph](#) and [rorschach](#) testing.

further reading

[reader comments](#)

- [Mass Media Funk](#) - Barry Beyerstein and Alan Alda on graphology
- [Mass Media Bunk - graphology](#)
- [Mass Media Bunk - more graphology](#)
- [Graphological Gender Testing](#) A humorous application of this "science".

- [The American Society of Questioned Document Examiners](#)
- [The British Academy of Graphology](#)
- [Datagraph - "scientific" graphology](#)
- "The Use of Graphology as a Tool for Employee Hiring and Evaluation," from the [British Columbia Civil Liberties Association](#)

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[Beyerstein, Barry. "Graphology," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\), pp. 309-324.](#)

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[Furnham, Adrian. "Write and Wrong: The Validity of Graphological Analysis," in *The Hundredth Monkey and Other Paradigms of the Paranormal*, ed. Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\), pp. 200-205.](#)

[Gardner, Martin. *Fads and Fallacies in the Name of Science* \(New York: Dover Publications, Inc., 1957\), ch. 24.](#)

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Myers-Briggs Type Indicator®

An instrument for measuring a person's preferences, using four basic scales with opposite poles. The four scales are: (1) extraversion/introversion, (2) sensate/intuitive, (3) thinking/feeling, and (4) judging/perceiving. "The various combinations of these preferences result in 16 personality types," says [Consulting Psychologists Press, Inc.](#), which owns the rights to the instrument. Types are denoted by four letters to represent one's tendencies on the four scales. For example, [INTJ](#) stands for "Introversion, Intuition with Thinking and Judging."

According to CPP, the MBTI® is "the most widely used personality inventory in history." According to the [Center for Applications of Psychological Type](#), approximately 2,000,000 people a year take the MBTI. [CPP](#) claims that it "helps you improve work and personal relationships, increase productivity, and identify leadership and interpersonal communication preferences for your clients".

Many schools use the MBTI® in career counseling. A profile for each of the sixteen types has been developed. Each profile consists of a list of "characteristics frequently associated with your type," according to CPP. The INTJ, for example, is frequently

- insightful, conceptual, and creative
- rational, detached, and objectively critical
- likely to have a clear vision of future possibilities
- apt to enjoy complex challenges
- likely to value knowledge and competence
- apt to apply high standards to themselves and others
- independent, trusting their own judgments and perceptions more than those of others
- seen by others as reserved and hard to know

The people at CPP aren't too concerned if the list doesn't seem to match your type. They advise such persons to see the one who administered the test and

ask for help in finding a more suitable list by changing a letter or two in your four-letter type. (See the [report](#) CPP publishes on its Web site.) Furthermore, no matter what your preferences, your behavior will still sometimes indicate contrasting behavior. Thus, no behavior can ever be used to falsify the type, and any behavior can be used to verify it.

Jung's Psychological Types

The MBTI is based on [Carl Jung's](#) notions of psychological types. The MBTI was first developed by Isabel Briggs Myers (1897-1979) and her mother, Katharine Cook Briggs. Isabel had a bachelor's degree in political science from Swarthmore College and no academic affiliation. Katharine's father was on the faculty of Michigan Agricultural College (now Michigan State University). Her husband was a research physicist and became Director of the Bureau of Standards in Washington. Isabel's husband, Clarence Myers, was a lawyer. Because Clarence was so different from the rest of the family, Katherine became interested in types. She introduced Isabel to Jung's book, *Psychological Types*. Both became avid "type watchers." Their goal was a noble one: to help people understand themselves and each other so that they might work in vocations that matched their personality types. This would make people happier and make the world a more creative, productive, and peaceful place in which to live.

According to Jung, some of us are extraverts (McGuire and Hull 1997: 213). (The spelling of "extravert" is Jung's preference. All cites are to McGuire and Hull.) They are "more influenced by their surroundings than by their own intentions" (302). The extravert is the person "who goes by the influence of the external world--say society or sense perceptions (303). Jung also claims that "the world in general, particularly America, is extraverted as hell, the introvert has no place, because he doesn't know that he beholds the world from within" (303). The introvert "goes by the subjective factor...he bases himself on the world from within...and...is always afraid of the external world...He always has a resentment" (303). Jung knows these things because he is a careful observer of people. He did only one statistical study in his life, and that was in [astrology](#) (315). In fact, Jung disdained statistics. "You can prove anything with statistics," he said (306). He preferred interpreting anecdotes.¹

Jung also claimed that "there is no such thing as a pure extravert or a pure introvert. Such a man would be in the lunatic asylum. They are only terms to designate a certain penchant, a certain tendency...the tendency to be more influenced by environmental factors, or more influenced by the subjective factor, that's all. There are people who are fairly well balanced and are just as much influenced from within as from without, or just as little" (304). Jung's intuition turns out to be correct here and should be a red flag to those who have created a typology out of his preference categories. A typology should have a bimodal distribution, but the evidence shows that most people fall

between the two extremes of introversion and extraversion. Thus, “although one person may score as an E, his or her test results may be very similar to those of another person’s, who scores as an I” (Pittenger 1993).

Jung claimed that *thinking/feeling* is another dichotomy to be used in psychological typing. “Thinking, roughly speaking, tells you *what* [something] is. Feeling tells you whether it is agreeable or not, to be accepted or rejected” (306). The final dichotomy, according to Jung, is the *sensation/intuition* dichotomy. “Sensation tells you that there is something....And intuition--now there is a difficulty....There is something funny about intuition” (306). Even so, he defines intuition as “a perception via the [unconscious](#)” (307).

Jung claims that it took him a long time to discover that not everybody was a thinking (or intellectual) type like himself. He claims that he discovered there are “four aspects of conscious orientation” (341). He claims he arrived at his typology “through the study of all sorts of human types” (342). These four orientations cover it all, he claims.

I came to the conclusion that there must be as many different ways of viewing the world [as there are psychological types]. The aspect of the world is not one, it is many--at least 16, and you can just as well say 360. You can increase the number of principles, but I found the most simple way is the way I told you, the division by four, the simple and natural division of a circle. I didn’t know the symbolism then of this particular classification. Only when I studied the archetypes did I become aware that this is a very important archetypal pattern that plays an enormous role. (342)

Jung’s evidence, from his clinical observations, is merely anecdotal. He talks about the extravert and the introvert as types. He also talks about the thinking type, the feeling type, the sensation type, and the intuition type. His evidence for his claims is not based on any [controlled studies](#). He said he “probably would have done them” if he had had the means (315). But as it was, he says, “I had to content myself with the observation of facts” (315).

Jung’s typology is more intuition and speculation than [science](#). If it *is* science, it is *bad* science because he didn’t do controlled studies and relied too heavily upon his own insights and evaluations of what he observed. His terminology is imprecise and equivocal. Finally, there is no meaningful way to falsify his claims about psychological types. Contrary behaviors can be made to fit any type. Jung believed that an extravert could have an introverted unconscious and that an introverted thinker might compensate by an extraverted feeling, further complicating the typology (311). It would also make it impossible to test his claims about types since any behavior could be [shoehorned](#) to fit the theory. A similar ambiguity pervades the astrology that Jung loved.

Jung seems to have realized the limitations of his work and may not have approved of the MBTI had he lived to see it developed in his name. “My scheme of typology,” he noted, “is only a scheme of orientation. There is such a factor as introversion, there is such a factor as extraversion. The classification of individuals means nothing, nothing at all. It is only the instrumentarium for the practical psychologist to explain for instance, the husband to a wife or vice versa” (305).

However, his typology seems to imply that science is just a point of view and that using intuition is just as valid a way of seeing and understanding the world and ourselves as is careful observation under controlled conditions. Never mind that that is the only way to systematically minimize [self-deception](#) or prevent identifying causes where there are none.

Isabel Briggs Myers made similar mistakes:

In describing the writing of the Manual, she mentioned that she considered the criticisms a thinker would make, and then directed her own thinking to find an answer. An extravert to whom she was speaking said that if he wanted to know the criticisms of thinkers, he would not look into his own head. He would go find some thinkers, and ask them. Isabel looked startled, and then amused.*

This anecdote typifies the dangers of self-validation. To think that you can anticipate and characterize criticisms of your views fairly and accurately is arrogant and unintelligent, even if it is typical of your personality type. Others will see things you don't. It is too easy to create straw men instead of facing up to the strongest challenges that can be made against your position. It is not because of type that one should send out one's views for critical appraisal by others. It is the only way to be open-minded and complete in one's thinking. To suggest that only people of a certain type can be open-minded or concerned with completeness is to encourage sloppy and imprecise thinking.

pre-Jungian typologies

Psychological typology did not originate with Jung, of course. Remember the four temperaments? Each of us, at one time, would have been considered to be either *melancholic*, *sanguine*, *phlegmatic*, or *choleric*. These classifications go back at least as far as the ancient physician [Hippocrates](#) in the middle of the fifth century B.C.E. He explained the four temperaments in terms of dominant "humors" in the body. The melancholic is dominated by yellow "bile" in the kidneys; the sanguine by humors in the blood; the phlegmatic by phlegm; and the choleric by the black bile of the liver. Hippocrates was simply adding to the ancient Greek insight that all things reduce to earth, air, water, and fire. Each of the four elements had its dualities: hot/cold and

dry/moist. A person's physical, psychological, and moral qualities could be easily understood by his temperament, his dominant 'humors,' the four basic elements, or whether he was hot and wet or cold and dry, etc. This ancient personality type-indicator "worked" for over one thousand years. Of course, cynics might attribute this success to [confirmation bias](#). It also "put a heavy brake on physiological research since there were few phenomena for which the humors could not be made to yield some sort of easy explanation."*

Today, most of us have abandoned Hippocrates' personality scheme because we do not find it to have any meaningful use. However, it must have been useful to have lasted for so long. How is the utility of such conceptual schemes measured? Perhaps by the same criteria we use today. *How does the scheme help one understand oneself and others?* Knowing these things can help us achieve our main goals in life and assist us in establishing good relationships with others. For example, a typical medieval choleric might see that his temperament suited him for work as a holy inquisitor. He could find the best path in life suited to him as he tried to achieve his main goal in life: the salvation of his eternal soul. Knowing his own temperament could help him plan his life. He might want to choose a cold and wet wife (a phlegmatic) as a counterbalance to his own hot and dry nature. He would know what obstacles he would have to overcome because of his intrinsic disposition, and he would be guided as to what occupation might suit him best. Knowing the four temperaments could help him understand others, even those unfortunate cold and dry melancholics on his rack or in his thumbscrews. In short, he could easily confirm that the theory "works."

The Myers-Briggs Instrument

Isabel Briggs Myers learned test construction by studying the personnel tests of a local bank. She worked up her inventories with the help of family and friends, and she tried her early tests on thousands of schoolchildren in Pennsylvania. Her first longitudinal study was on medical students, who she followed up after 12 years and found that their occupations fit their types. She eventually became convinced that she knew what traits people in the health professions should have ("accurate perception and informed judgment"). She not only thought her tests could help select who would make good nurses and physicians, but "she hoped the use of the MBTI® in training physicians and nurses would lead to programs during medical school for increasing command of perception and judgment for all types, and for helping students choose specialties most suited to their gifts."

Others eventually helped her modify and develop her test, which was taken over by CPP in 1975. CPP has turned it into the instrument it is today. "I know intuitive types will have to change the MBTI," she said. "That's in their nature. But I do hope that before they change it, they will first try to understand what I did. I did have my reasons."*

As noted above, the Myers-Briggs™ instrument generates sixteen distinct personality profiles based on which side of the four scales one tends toward. Technically, the instrument is not supposed to be used to spew out personality profiles and pigeonhole people, but the temptation to do so seems irresistible. Providing personality tests and profiles has become a kind of entertainment on the Internet. There is also a pernicious side to these profiles: They can be used to justify discriminatory behavior and to give bad advice to those seeking career counseling. For example, employers may base important decisions regarding hiring, firing, and assignment of personnel based on personality type, even though the evidence shows that the MBTI® is unreliable at identifying one's type. Several studies have shown that when retested, even after intervals as short as five weeks, as many as 50 percent will be classified into a different type. There is scant support for the belief that the MBTI® would justify such job discrimination or would be a reliable aid to someone seeking career guidance (Pittenger 1993).

Here are some excerpts from Myers-Briggs™ profiles. Note how parts of each profile could fit most people.

1. Serious, quiet, earn success by concentration and thoroughness. Practical, orderly, matter-of-fact, logical, realistic and dependable. See to it that everything is well organized. Take responsibility. Make up their own minds as to what should be accomplished and work toward it steadily, regardless of protests or distractions.
2. Usually have original minds and great drive for their own ideas and purposes. In fields that appeal to them, they have a fine power to organize a job and carry it through with or without help. Skeptical, critical, independent, determined, sometimes stubborn. Must learn to yield less important points in order to win the most important.

The first profile is of an ISTJ (introversion, sensation, thinking, judgment), a.k.a. "The Trustee." The second is of INTJ (introversion, intuition, thinking judgment), a.k.a. "The Scientist." The profiles read like something from Omar the astrologer and seem to exemplify the [Forer effect](#).

Psychological tests such as the Myers-Briggs Type Indicator® seem to be little more than sophisticated parlor games. They will be validated by their seemingly good fit with the data, in the same way that astrologers and [biorhythmists](#) find predictive patterns fitting their readings and charts, i.e., by [confirmation bias](#) and the ambiguity of basic terms and the Byzantine complexity that ultimately allows any kind of behavior to fit any personality type. The big difference, of course, is that psychological testing has the backing of a community of university statisticians to reinforce its notions. It is a cottage industry.

uses of the MBTI®

The MBTI® is used in business to decide whom to hire and it is frequently used by managers as some sort of productivity tool. By getting people to "understand" themselves and their co-workers better by knowing their personality types, it is hoped that people will be more productive. As mentioned above, Isabel Myers thought her work could be used to develop medical school programs that would train the appropriate types in the appropriate ways.* This idea, too, has caught on. Some have recommended changes in the "goals, activities, instructional methodologies, and types of instructional programs within technology education" based on the belief that instruction should "fit" the average (in the sense of 'mode', most frequently occurring type) personality type of technology students.* Still others have recommended 16 different types of instruction, one for each of the 16 types, based on the notion that there must be 16 learning styles if there are 16 personality types.*

Some think there are only *nine* basic personality types and follow the [enneagram](#). As Jung said, there could be any number of types, even 360, if we wished. Who is right? Maybe they're both wrong. Perhaps we need only think of two types, [those from Mars and those from Venus](#), as John Gray, [Ph.D.](#), claims.

1. For example, to support his notion that "intuitive types very often do not perceive by their eyes or by their ears, they perceive by intuition" (308), Jung tells a story about a patient. She had a nine a.m. appointment and said to Jung: "you must have seen somebody at eight o'clock." She tells him she knows this because "I just had a hunch that there must have been a gentleman with you this morning." She knows it was a gentleman, she says, because "I just had the impression, the atmosphere was just like a gentleman was here." Jung seems uninterested in critically examining her claims. The anecdote seems to support his picture of the intuitive type. He doesn't consider that she may have seen the gentleman leave but failed to mention this to Jung, perhaps to impress him with her power of intuition. Jung notes that the room smelled of tobacco smoke and there was a half-smoked cigar in an ash tray "under her nose." Jung claims she didn't see it. He doesn't even consider that she may have seen it and smelled the stench of the cigar but did not call attention to it.

The reason scientists do [controlled studies](#) rather than rely solely on their clinical observations and memories as Jung did is because it is easy to [deceive ourselves](#) and [fit the data](#) to our hypotheses and theories. Another Jungian anecdote will help exemplify this point. A male "sensation type" and a female "intuitive type" were in a boat on a lake. They were watching birds dive after fish. According to Jung, "they began to bet who would be the first to see the

bird [when it emerged from the water]. Now you would think that the one who observes reality very carefully--the sensation type--would of course win out. Not at all. The woman won the bet completely. She was beating him on all points, *because by intuition she knew it beforehand*" (306-307, emphasis added). One couple, one try. That's it. No more evidence is needed. The truth is that Jung doesn't know any more than I do why the woman was better at the game than the man. Perhaps the man lost on purpose as part of a misguided plan to seduce the woman. Who knows? But Jung is clearly begging the question with this and most of his other "observations of facts," as he calls these stories.

Some of his anecdotes may have been entirely fictional. For example, to support his notions of intuition and [synchronicity](#), he says:

For instance, I speak of a red car and at that moment a red car comes along. I hadn't seen it, it was impossible because it was behind the building until just this moment when the red car appears. Now this seems mere chance. Yet the Rhine experiments [on [ESP](#)] proves that these cases are not mere chance. Of course many of these things are occurrences to which we cannot apply such an argument, otherwise we would be superstitious. We can't say, "This car has appeared because some remarks had been made about a red car. It is a miracle that the red car appears." It is not, it is chance, just chance. But *these "chances" happen more often than chance allows, and that shows there is something behind it* (315, emphasis added).

Again, had Jung an understanding of statistics he would know that what he thinks happens more often than chance allows, in fact happens in accordance with what chance not only allows but also expects.

further reading

[reader comments](#)

- [The Enneagram and the MBTI®](#)
- [Personality Type Summary](#) by Jon Noring ["....personality models do not put people in boxes, people put people in boxes...."]
- [The Keirsey Character Sorter](#) Find your personality type!
- [The Four Temperaments](#)
- [TypeLogic](#)
- ["T or F? Honesty Tests Really Work"](#) by Ellyn E. Spragins
- [Saint Mary's College Loves the Myers-Briggs™](#)
- [CARL JUNG 1875 - 1961](#) by Dr. C. George Boeree
- [The Relationship Between Psychological Type and Professional](#)

[Orientation Among Technology Education Teachers](#) by Robert C.

Wicklein & Jay W. Rojewski

- [GSU Master Teacher Program: On Learning Styles](#)
- [The Story of Isabel Briggs Myers](#)

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Forer, B.R. "The Fallacy of Personal Validation," *Journal of Abnormal Psychology*, 1949.

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[Pittenger, David J. "Measuring the MBTI and Coming Up Short." *Journal of Career Planning & Placement*. Fall 1993.](#)

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reader comments:

begging the question

Fri, 12 Nov

Hi And welcome to your 1738th email of the day, which is about Begging the Question :-) I don't think all your examples work. For example:

*A1.Abortion is the unjustified killing of a human being and as such is murder.
A2.Murder is illegal. A3.So abortion should be illegal.*

This has the same structure as:

S1.All men are mortal. S2.Socrates is a man. S3.So Socrates is mortal.

which for quite some time has been seen as a model of logic, not as an example of begging the question.

reply: Begging the question is not a formal fallacy. There is nothing wrong with the form of the examples I have used. They are all valid arguments, or can be made so quite simply. Being valid only means that they commit no formal fallacy. Begging the question is often referred to as a fallacy of presumption or a fallacy of assumption because the error is in assuming what one asserts to be proving. The example you give is not a model of logic, but a model of a valid argument in predicate logic. This model does beg the question. Validity is independent of the truth of the premises and vice-versa.

Look at this one step at a time.

A1 is the unsupported assertion that abortion is murder. S1 is the unsupported assertion that all men are mortal. The support for these assertions, if any support is to be found, lies outside the syllogism. In A1, the speaker perceives abortion to be a kind of murder; in S1, the speaker perceives men to be a kind of mortal creature.

Steps A2 and S2 don't seem to be very contentious.

reply: Neither does S1.

Steps A3 and S3 are interesting. Step S3 seems irrefutable, while I could well imagine an alternate A3:

A3': So we should legalise some kinds of murder.

reply: We call that a non sequitur.

Hmm. Now that I've reached this conclusion, I don't know what to make of it! I wasn't expecting this at all. I still don't think it has anything to do with question-begging. Perhaps the topic of argument A is less cut-and-dried than the topic of argument S, which is why we spend more time discussing abortion than whether Socrates is, or was, mortal.

reply: If by *topics*, you mean the assumptions that abortion is murder and that all men are mortal, and if by *cut-and-dried* you mean *warranted as an assumption*, then you are right. Few people would be unwilling to grant the assumption that all men are mortal. (There are some, however, and you may read about them elsewhere in the *Skeptic's Dictionary* or seek them out on the Internet, e.g., [Alex Chieu](#).) While many would call the assumption that *abortion is murder* unwarranted.

The "paranormal experiences" argument also does not seem to be circular. Substitute "reality" for "paranormal phenomena" to get:

"Reality exists because I have had experiences that can only be described as real."

Is that really circular? It seems to be no different from "reality exists because I can see and touch it, and it does not appear to be a dream" - which is roughly my day-to-day definition of reality. (Not that I need a definition, most days.)

reply: To continue this discussion would be circular. But....begging the question is not a formal fallacy and is not a claim as to the invalidity of the reasoning, etc. etc.

Anyhow, keep up the good work!

Norman Paterson, University of St Andrews

reply: You've been hanging around the Central Bar, haven't you?



Bermuda (or "Devil's") Triangle

The Bermuda Triangle (a.k.a. the Devil's Triangle) is a triangular area in the Atlantic Ocean bounded roughly at its points by Miami, Bermuda, and Puerto Rico. Legend has it that many people, ships and planes have mysteriously vanished in this area. How many have mysteriously disappeared depends on who is doing the locating and the counting. The size of the triangle varies from 500,000 square miles to three



times that size, depending on the imagination of the author. (Some include the Azores, the Gulf of Mexico, and the West Indies in the "triangle.") Some trace the mystery back to the time of Columbus. Even so, estimates range from about 200 to no more than 1,000 incidents in the past 500 years. [Howard Rosenberg](#) claims that in 1973 the U.S. Coast Guard answered more than 8,000 distress calls in the area and that more than 50 ships and 20 planes have gone down in the Bermuda Triangle within the last century.

Many theories have been given to explain the extraordinary mystery of these missing ships and planes. [Evil extraterrestrials, residue crystals from Atlantis, evil humans with anti-gravity devices or other weird technologies](#), and vile vortices from the fourth dimension are favorites among fantasy writers. Strange magnetic fields and [oceanic flatulence](#) (methane gas from the bottom of the ocean) are favorites among the technically-minded. Weather (thunderstorms, hurricanes, tsunamis, earthquakes, high waves, currents, etc.) bad luck, pirates, explosive cargoes, incompetent navigators, and other natural and human causes are favorites among skeptical investigators.

There are some skeptics who argue that the facts do not support the legend, that there is no mystery to be solved, and nothing that needs explaining. The number of wrecks in this area is *not* extraordinary, given its size, location and the amount of traffic it receives. Many of the ships and planes that have been identified as having disappeared mysteriously in the Bermuda Triangle were not in the Bermuda Triangle at all. Investigations to date have not produced scientific evidence of any unusual phenomena involved in the disappearances. Thus, any explanation, including so-called scientific ones in terms of methane gas being released from the ocean floor, magnetic disturbances, etc., are not needed. The real mystery is how the Bermuda Triangle became a mystery at all.

The modern legend of the Bermuda Triangle began soon after five Navy planes [[Flight 19](#)] vanished on a training mission during a severe storm in 1945. The most logical theory as to why they vanished is that lead pilot Lt. Charles Taylor's compass failed. The trainees' planes were not equipped with working navigational instruments. The group was disoriented and simply, though tragically, ran out of fuel. No mysterious forces were likely to have been involved other than the mysterious force of gravity on planes with no fuel. It is true that one of the rescue planes blew up shortly after take-off, but this was likely due to a faulty gas tank rather than to any mysterious forces.

Over the years there have been dozens of articles, books, and television programs promoting the mystery of the Bermuda Triangle. In his study of this material, Larry Kushe found that few did any investigation into the mystery. Rather, they passed on the speculations of their predecessors as if they were passing on the mantle of truth. Of the many uncritical accounts of the mystery of the Bermuda Triangle, perhaps no one has done more to create this myth than Charles Berlitz, who had a bestseller on the subject in 1974. After examining the 400+ page official report of the Navy Board of Investigation of the disappearance of the Navy planes in 1945, Kushe found that the Board wasn't baffled at all by the incident and did not mention alleged radio transmissions cited by Berlitz in his book. According to Kushe, what isn't misinterpreted by Berlitz is fabricated. Kushe writes: "If Berlitz were to report that a boat were red, the chance of it being some other color is almost a certainty." (Berlitz, by the way, did not invent the name; that was done by Vincent Gaddis in "The Deadly Bermuda Triangle," which appeared in the February, 1964, issue of *Argosy*, a magazine devoted to fiction.)

In short, the mystery of the Bermuda Triangle became a mystery by a kind of [communal reinforcement](#) among uncritical authors and a willing mass media to uncritically pass on the speculation that something mysterious is going on in the Atlantic.

further reading

[reader comments](#)

- [A Brief History of the Devil's Triangle](#) by D. Trull
- ["Exorcizing the Devil's Triangle"](#) by Howard L. Rosenberg
- [The Un-mystery of the Bermuda Triangle](#)
- [The Bermuda Triangle](#) by Bubba, the Salty Dog
- [U.S. Navy page on the Bermuda Triangle](#)
- [The Bermuda Triangle](#) - ABout.com
- [The Bermuda Triangle](#) by James Knickelbein

- [Battle Royale](#)

[Group, David. *The Evidence for the Bermuda Triangle* \(Aquarian Press, 1984\)](#)

[Kushe, Larry. *The Bermuda Triangle Mystery--Solved* \(Prometheus Books, 1995\), reprint of the Warner Books 1975 edition.](#)

[Randi, James. *Flim-Flam! Psychics, Esp, Unicorns, and Other Delusions* \(Buffalo, New York: Prometheus Books,1982\), ch. 3.](#)

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Last updated 03/04/03



[begging the question](#)

[The Bible Code](#)



[SkepDic.com](#)

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reader comments:

Bermuda Triangle

22 Feb 2000

Love your site at skepdic.com. I want to bring a small error to your attention. The Bermuda Triangle is generally accepted (myth logically speaking) to have as its Florida vertex the city of Ft. Lauderdale, not Miami as in your myth #26. Specifically, it is anchored at Fort Lauderdale/Hollywood international Airport, where, when it was a US Navy training base, that infamous flight of training planes took off never to be seen again. Many of the original buildings of the Navy base are still standing. We folks who are residents of Ft. Lauderdale and surrounding communities are proud of this bit of folklore. Miami may be the bigger city, but we think it gets too much "credit" in this regard.

Joel Vergun

reply: Really? You're proud of this? Well, give credit where credit is due. However, the Bermuda or Devil's Triangle is not an actual place and does not have actual boundaries. All points of reference are rough, including Bermuda and Puerto Rico. D. Trull lists Ft. Lauderdale instead of Miami as one point of the triangle. But the U.S. Navy lists Miami and specified San Juan, Puerto Rico, as does Bubba the Salty Dog. James Knickelbein puts Miami as one of the points. If it were called the Ft. Lauderdale Triangle I'd be concerned about where to put this point of the triangle, but since it isn't, I'm not.

28 Oct 1998

This may or may not be of interest to you, but I thought I'd toss it your way anyway. My late mother was a U.S. Navy WAVE during World War II, posted at a small naval air station near Orlando. She was a Link Trainer Instructor (she taught instrument navigation to Navy pilots), so she knew a great deal about navigation, naval aircraft, and the men who flew them.

She was still living when all the hype about the Bermuda Triangle and the loss of Flight 19 hit the news, and she was astonished and disgusted at the outrageous claims that were made about the incident. First, she pointed out the fact that during World War II, MANY, MANY planes went down all over the

world, leaving no trace, and there have been virtually no attempts to attribute these losses to anything but military action, mechanical failure, or human error. World War II had ended by the time Flight 19 disappeared, but that only eliminated the possibility of military action.

The other causes could still apply. Most naval aircraft were equipped with automatic distress signal transmitters that were supposed to float free and start sending a radio signal when a plane made a forced landing in water, providing search and rescue craft with a "fix" on the location. The proponents of the Bermuda Triangle nonsense have made much of the fact that not a single signal was received from the transmitters that had been aboard the planes of Flight 19. This may not be EXACTLY what she said, but a pretty close quotation of my mother's reaction to this argument was "Those damned things didn't even WORK most of the time, and even when they did, it wasn't for very long!" We also know that the seas were heavy, and radio transmission conditions were poor, so it should come as no surprise that no automatic distress signals were picked up.

Depending on which sources you read, most of the planes were missing some or all of their navigation equipment, and one essential instrument (a clock) was missing from the planes of the student pilots. It appears that from something else my mother told me that there was no evil plan or design behind this omission. The simple fact was that the Navy had a major problem with clocks being stolen out of planes. These clocks were massive instruments costing hundreds of dollars (even in the 1940's), and were designed to keep very accurate time. I have in my possession at least one letter my mother wrote to her mother mentioning this problem of theft, and further describing how a surprise search of the entire base turned up several clocks in personal lockers and other locations they were not intended to be. So, maybe it's just possible that they were short of clocks the day Flight 19 took off.

I realize that this doesn't add much to the material we already have which debunks the Bermuda Triangle, but perhaps it does add one more opinion of someone versed in navigation and naval aviation to the others which saw nothing mysterious about the disappearance of Flight 19

**Best regards,
Roger Voeller
Portland, OR**

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SkepDic.com

[Secrets of a celebrity
sect](#)

[By David Rowan,
Evening Standard](#)

Cabala (also *caballa*, *kabala*, *kaballa*, *Kaballah*, *qaballah*, etc.)

Kabbalah is Hebrew for *tradition*. But the Cabala has come to refer to a collection of mystical and ethical Jewish writings, mostly dating from the medieval period. It consists in good part of speculative and symbolical interpretations of Hebrew Scriptures.

There are several cabalistic traditions, some of which are noted for their [messianic](#) leanings. One of the more well-known messiahs was [Sabbatai Zevi](#), who, in 1666 convinced a large part of the Jewish, Muslim, and Christian world that he was the Messiah. His conversion to Islam is seen variously as a cowardly pseudo-conversion aimed at saving his life or as a necessary step in the redemption of the world.

See **related entry** on the [Bible Codes](#).

further reading

[reader comments](#)

- [Kabbala](#) (*Catholic Encyclopedia*)
- [Shraga Berg's Kabbalah Center](#) exposed by [Rick Ross](#)
- [Kabbalah FAQ](#)
- [Kabbalah Home Page](#)
- [Colin Low's Notes On Kabbalah](#)

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Last updated 10/17/02



[Cardiff giant](#)

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the Bible code

19 Aug 2001

Dear Professor Carroll,

Allow me to use this opportunity to congratulate and thank you for the excellent resource that I found in the SkepDic. However, the actual motive behind this letter lies in some thoughts I deem myself to have to share about the method behind the so called "Bible Code". Forgive me for my possible arrogance; but I have not found the same ideas mentioned in SkepDic article on the matter (or elsewhere), and I couldn't know whether they were not previously known to you and merely omitted for some considerations. Still I think they are worth voicing, so here they are. If you find them to be useful, I'd be delighted. If you do not, I beg your pardon for taking up your time beforehand.

*Leaving aside the validity of the actual method the authors of "the Code" are using to select their patterns, I couldn't help commenting on the method they are using to *read* them. And that is extremely questionable (IMHO) and might account for the reason why the Hebrew translation of "War and Peace" did not yield the same results as the book of Genesis (assuming that it really did not).*

I am not a native Hebrew speaker, but I have lived in Israel for seven years, and have sufficient command of the language (sufficient for academic studies, at least, having passed the Technion tests for the foreign students successfully), so I hope I am qualified to say that modern-use Hebrew and Biblical Hebrew do not share the same orthography. In Hebrew, vowels have grammatical meaning, and change with grammatical role of the word according to fixed patterns, while the actual radical is formed solely by the unchanging consonants. The standard Hebrew radical consists of three consonants (some modern words may have four, but I am not aware of any four-letter radicals that originate in ancient times). The old writing system was lacking any vowels whatsoever, relying on the grammatical knowledge of the reader. Later on the system had been enhanced with vowel modifiers that are written under the alphabetical consonants, in form of sets of dots and dashes. E.g. the word 'sefer' "book" and the word 'sofer' "author" would be written the same 'SFR' in the old method, and the addition of the vowel marks would eliminate the ambiguity. The Torah is written this latter way, using vowel marks under the text; its lines consist purely of consonants. The modern-use writing system, however, is applying a different system of hints, in which the vowel marks are used only in ambiguous cases, and the letters "yod" [j] and "waw" [w] are used to designate the [i] and [o] or [u], respectively. The [a] and [e] are still omitted. Thus, the "book" will still remain 'SFR' while "author" becomes "SWFR" ("SOFR") which is enough to avoid the ambiguity. In cases where "yod" and "waw" must be read as consonants, they are simply doubled.

What does this have to do to Bible Code? Two things.

First, the translation of "War and Peace" was most likely done in the modern orthography, which means that its symbol composition is not similar to that of the Bible because of a much larger occurrence of "yod"s and "waw"s, at the very least.

Second (and much more scandalous) is the fact that even a casual glance at the "Code" reveals: the authors prefer to use the modern orthography (not yet invented in Biblical time, suffice to say) interchangeably with the old one, and prefer to totally ignore the vowel marks in the Biblical text unless the pattern is an actually occurring word. I have not conducted an extensive study, but here's a random "prediction" claim, taken just because it was the first I stumbled upon that contained the Hebrew text with vowel marks, found at <http://asalizaki.freesevers.com/kursk.htm>. The words that were allegedly found by the authors are "sunk", "Kursk" and "of his sepulchre". The latter I would rather translate as "his tomb", and it is clearly a regular word in a line of the Torah text, in proper grammatical position, preceded with a preposition of genitive case; the whole phrase it is taken out of reads "the man knows of his tomb". This is the only word whose vowels are all right. The rest are read not by the rule, but as the authors desire. What they interpret as "Kursk", read with the vowel marks, becomes phonetically impossible "keurisk", so they prefer to omit the vowel marks and read the "KWRSK" pattern by the rules of modern grammar as "kursk", not as equally plausible "korsak", "kursek" etc. (With the word they read as "sunk" I unfortunately am not familiar.)

Another reading at <http://asalizaki.freesevers.com/taiwan.htm> does not have vowel marks, but it does contain the word "Taiwan" - in modern orthography with double "yod"s and "waw"s ("TYWWAN") except that the ending "nun" is in improper form that cannot stand at the end of a Hebrew word. The use of "aleph" before "nun" is also quite questionable. In the same reading we find a word "number" taken out of the line just like "of his tomb" was in the previous example. Why didn't they pick other words with matching meanings from the relatively long excerpt is quite a mystery, but they did interpret one of the patterns as numbers, getting a date. (Any pattern of Hebrew letters can be read as a number.) The "Taipei" claim in reality is "TYYPH", which at best would be read "taipe" by modern rules. Unfortunately, there are no vowel marks in the table, so we cannot see what the patterns would read properly.

Yet another vowel-marked sample at <http://asalizaki.freesevers.com/aids.htm> shows more of the beautifully elective reading. What they read "badamot" ("in the bloods") with proper vowels becomes an impossible "badamiwt". Other patterns exhibit no possible phonetical reading at all for lack of vowels! Especially nice is the one they read as "subsistence", which has one vowel per four consonants.

In conclusion, whatever the method they are using to pick the patterns, their Code appears to be wonderfully "flexible" in terms of proper writing. Either it was encoded by someone illiterate, or whoever does the reading is not very picky. As long as the pattern fits the fact, it will go in. If it does not, they would throw out the vowels and try to reinterpret the reading of the consonant radical. If it still does not, they try variants written in modern orthography, or even ignore the obvious misplaced letters (like that outrageous "nun" in mid-word form at the end of a word). In short, whoever interprets the code seems to do so much twisting to make it fit, that it does not matter much what method of pattern generations they may use initially; not even mentioning that their

statistical analysis is much devaluated, because they are not only picking only a few patterns from relatively long excerpts, but they also tend to throw out half the letters in the text before they start. The "mathematical and scientific" method turns out to rely on an astonishing amount of personal interpretation, alas.

HWMCHCNBRDNLNGTBTBTHRWNGLLTHVWLSPOCKNGFWPTTRNSTWLL? ("How much can be read in a long text by throwing out all the vowels and picking a few patterns at will?" Or is it

..BReaD..NyLoN..TaX..TiBeT..BaTHeR/RoWiNG..TaLL/LiTe..SPoCK/KiNG..PoTTeR/TRaNSiT WaLL"... and I haven't even tried reading it backwards or dropping every second letter! The miraculous occurrence of "Potter" in such proximity to "Row[l]ing" is a stunning prediction of Harry Potter's success, isn't it? And if we read every third letter, we find "lives" intersecting with "Spock", clearly predicting the slogan used by "Star Trek" fans. Sapienti sat.)

I sincerely hope that this little piece of rather trivial observation may be of some help in debunking the "reading" of absent meanings. I wouldn't even bother you with something this trivial, unless I weren't aware that knowledge of Hebrew ancient and modern does not seem to be widespread among the pursuers of arithmancy.

With best regards, Eugene Arenhaus

24 Mar 1998

Not really claiming any religious affiliation, I hope you understand, I was extremely surprised to find the existence of 'codes' in the Torah. I have found patterns numeric and alphabetic in nature. Now granting that the Torah text has some 305,000 + letters with the patterning and coding I have located (some 50 plus in just one scripture of 42 letters) it is enough to bring one to wonder, what is going on? I am not an anti-Semite and do not believe it is a Jewish conspiracy... I have been in possession of a resource since 1990 that has of recent come to light and explanation that lead me to a single scripture, Genesis 5:2. From there I have started a study of theoretical physics, astrophysics, calculus, quantum theory, Torah and various creation myths... I am presently of the mind that there is a 'source' that has been in contact with many cultures for many many many years of human existence. I do not wish to convert or try to convince any one of anything... but I do know without the shadow of a doubt, humanity is on the verge of either waking to our place in the Universe or allowing crude thinking religionists and absolute axe-grinding atheists from taking us all off the face of the earth. There has to be a mid point struck. And opening up all facets to inspection by clear thinking non-prejudicial minds is a must. Respectfully,

Manuel Colunga-Hernandez

reply: May the Source be with you and all your brethren who believe that contact has been made and we are being watched over by benign beings from another world. Whether they be angels or aliens, I do not know, but if they come to you in your dreams, let us know and we'll sharpen our axes.

03 Apr 1998

Hey Bob,

Nice job trying to disprove the Bible code, close but no cigar. I don't quite understand why you used the King James Bible to find Bill Gates. I believe I recall you saying that you removed all of the vowels since the Hebrew language doesn't contain vowels. How did you find the name "Bill Gates" without vowels, must've really came up Bll Gts. This was not even half way clever. Was this an attempt at humor? If so then ha, ha, ha. So funny that I almost forgot to laugh.

How about something clever on my part, maybe even mystifying. I am psychic and I'm going to tell you about yourself even though I've never met you or read anything about you related to my psychic reading on you.

- 1.) *You are a liberal.*
- 2.) *You are a socialist at heart, maybe in reality too.*
- 3.) *You believe that the government is the savior of the us all.*
- 4.) *You are a big believer in the United Nations system of governing the world.*
- 5.) *You have fewer than three children.*
- 6.) *You believe that Gorby tore down the wall because he's a great guy.*
- 7.) *You believe Ronald Reagan was probably the worst leader the US has ever had.*
- 8.) *You believe that a hole in the ozone is a serious threat to life on earth.*
- 9.) *You are an atheist.*
- 10.) *You recycle and are very concerned about the environment.*
- 11.) *You drive a BMW or a Mercedes.*

These came through pretty clear but psychics, such as myself, are usually not 100% accurate. Let me know how accurate I've been.

Ron

reply: Hey Ron,

Your psychic powers must be waning. I assume that is what you used, since you obviously didn't read my entry on The Bible Code. Not only don't I try to disprove The Bible Code by using versions of the Bible, I don't use any version to do anything, much less find Bill Gates' name therein. Your recall must have taken you to some past or future life, for in this life I never removed any vowels from any book, though I may have noted somewhere that ancient Hebrew lacks vowels. I can see that it does not take much to make you laugh, since you can entertain yourself with your hallucinations.

I'm not psychic and I've never met you either, but let me tell you about yourself.

- 1) You are conservative.**
- 2) You are a capitalist.**
- 3) You distrust the government.**
- 4) You distrust the United Nations.**
- 5) You have three or more children.**
- 6) You believe that it was Ronald Reagan's tough policies which brought down the**

Berlin wall.

- 7) You believe Ronald Reagan was one of the greatest leaders the U.S. ever had.**
- 8) You don't believe there is hole in the ozone that is a serious threat to life on earth.**
- 9) You are a theist and do not believe in evolution.**
- 10) You don't recycle and think the environment cleans up after us while we sleep.**
- 11) You drive a Ford.**

These came through pretty clearly. I only hope I am wrong about number 5.

p.s. Your psychic reading of me got four out of eleven right. A blind monkey could have done better. How did I do in my psychic reading of you?

28 Nov 1997

Thanks for your thoughts, though I humbly disagree with your conclusions. Your arguments that the codes are a fraud hinge on three general premises:

First, that Drosnin focuses on the predictive nature of the codes. Second, that the "codes" are created by theologians in need of new income sources. Last, that Dr. Rips denies the work product of Drosnin.

reply: First, I neither claim nor argue that the codes are a fraud. I imply that it is foolish to think that the Omnipotent One would conceal non-spiritual messages for cryptologists to decipher. I nowhere deny that names of people and places can be found using statistical formulae. I argue that Drosin is deliberately misleading in his presentation of the work of Rips, et. al. I can add here that Drosin is wrong in his claim that this process only works for the Hebrew version of the Bible. Others have applied it to *Moby Dick* and *War and Peace* with similar useless results. (The author's second point refers to an attempt at humor that has been edited out.)

All three arguments are invalid. In brief, Drosnin, who remains a Secular Jew, claims that "the only thing I can state with certainty is that there is a code". He at times stretches beyond this position, but never departs from its truth. Even if Drosnin were to mistakenly claim that the codes are predictive, his position would not negate the code's existence (the message exists even if the messenger is a lunatic).

reply: If he claims that he can state "with certainty" that there is a code, then he overstates his case. The presence of a code would imply *purposive* behavior on the part of the author. Since we can retrodict any number of names and places in just about any book we choose using statistical formulae and spending enough time to search for something "meaningful", we would have to assume that just about every author wrote in code. This position is absurd.

In this vein you raise the issue that Rips states that no messages can be extracted from the code, and that this position is shared by all serious code scientists. Again, regardless if the codes are not predictive, they exist. Many theologians who are familiar with the codes do not reach to conclusions about the goals or predictive nature of the codes. Their existence is enough to be of importance.

I caution you to not ignore Drosnin's position that the text of the Old Testament, in Hebrew, is the only text in which these historical and biblical phrases are found in a statistically significant pattern.

reply: I nowhere say that no messages can be extracted from applying the method of Rips et. al. to the Bible. We can't know a priori whether there are other books which show statistically significant results using ELS analysis. So far, the only evidence is for Genesis, not the complete Torah.

I am unaware of anyone who has offered any evidence (though many have tried) showing any other works to have a scintilla of similar statistical correlation with letter sequencing to names, places, dates, events, and historical figures, both of the time of the old/new testament and today

Rips himself, who you use in your argument, states that in his opinion that "even today the codes could not have been created by man & machine." By agreeing that the codes exist, whether for G-d's purpose or by some totally bizarre random cosmic event, you will be taking a huge step. As there is no scientifically proven (nothing beyond the hypothetical) contrary position, it's a step you should take.

Bradley A. Barros

reply: I see no reason to take any steps. The code doesn't work for all Hebrew versions of Genesis. I think there is still some more math to be done.



[The Bible Code](#)

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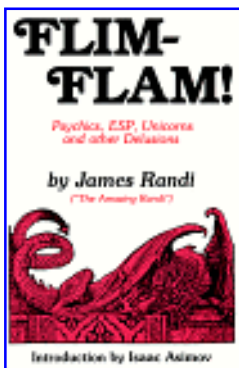
SkepDic.com

[The real truth about Bigfoot](#)

[Lovable trickster created a monster with Bigfoot hoax By Bob Young](#)

[Bigfoot hoaxer dies](#)

[Grover Krantz, foremost Bigfoot expert, dies at 70 By Mark Rahner Seattle Times staff reporter](#)



Bigfoot [a.k.a. Abominable Snowman of the Himalayas, Mapinguari (the Amazon), Sasquatch, Yowie (Australia) and Yeti (Asia)]

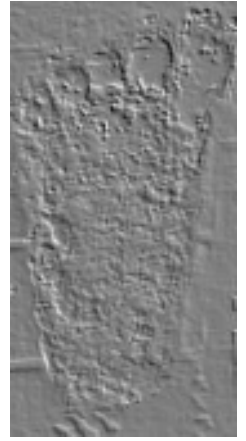
An apelike creature reportedly sighted hundreds of times around the world since the mid-19th century. The creature is variously described as standing 7-10 ft (2-3 m) tall and weighing over 500 lb (225 kg), with footprints 17 in. (43 cm) long. The creature goes by many names, but in northern California it is known as “Bigfoot.” (It is also known as the Abominable Snowman of the Himalayas, Mapinguari [the Amazon], Sasquatch, Yowie [Australia] and Yeti [Asia]). The creature is big business in the Pacific Northwest along a stretch of US-101 in southern Humboldt County known as the Redwood Highway. Numerous shops line the roadway, each with its own Bigfoot chainsaw-carved out of majestic redwood.



Most scientists discount the existence of Bigfoot because the evidence supporting belief in the survival of a prehistoric bipedal apelike creature of such dimensions is scant. The only notable exception is Grover S. Krantz (1931-2002), an anthropologist at Washington State University. For nearly forty years, Krantz argued for the probable existence of Bigfoot,* but was unable to convince the majority of scientists. The evidence for Bigfoot’s existence consists mainly of testimony from Bigfoot enthusiasts, footprints of questionable origin, and pictures that could easily have been of apes or humans in ape suits. There are no bones, no scat, no artifacts, no dead bodies, no mothers with babies, no adolescents, no fur, no explanation for how a species likely to be communal has never been seen in a family or group activity. There is no evidence that any individual, much less a community of such creatures, dwells anywhere near any of the “sightings.” In short, the evidence points more towards hoaxing and delusion than real discovery. Some believers dismiss all such criticism and claim that Bigfoot exists in another dimension and travels by [astral projection](#). Such claims reinforce the skeptic’s view that the Bigfoot legend is a function of passionate fans of the [paranormal](#), aided greatly by the mass media’s eagerness to cater to such enthusiasm.

In addition to the eyewitness testimonials of enthusiastic fans, the bulk of the evidence provided by proponents of Bigfoot consists of footprints and film. Of the few footprints available for examination in plaster casts, there is such great disparity in shape and configuration that the evidence “suggests many independent pranksters” (M. Dennett, 1996).

Probably the most well-known evidence for belief in Bigfoot's existence is a film shot by Bigfoot hunters Roger Patterson and Bob Gimlin on Oct 20, 1967, at Bluff Creek in northern California. The film depicts a walking apelike creature with pendulous breasts. Its height is estimated at between 6' 6" and 7' 4", its weight at nearly one ton. Over thirty years have passed, yet no [cryptozoologist](#) has found further evidence of the creature near the site except for one alleged footprint.



The [North American Science Institute](#) claims it has spent over \$100,000 to prove the film is of a genuine Bigfoot. However, according to veteran Hollywood director [John Landis](#), “that famous piece of film of Bigfoot walking in the woods that was touted as the real thing was just [a suit made by John Chambers](#),” who helped create the ape suits in [Planet of the Apes](#) (1968). [Howard Berger](#), of Hollywood's KNB Effects Group, also has claimed that it was common knowledge within the film industry that Chambers was responsible for a hoax that turned Bigfoot into a worldwide cult. According to [Mark Chorvinsky](#), Chambers was also involved in another Bigfoot hoax (the so-called “Burbank Bigfoot”). According to [Loren Coleman](#), however, Chambers denied the allegations about the Patterson hoax in an interview with [Bobbie Short](#) and claimed that Landis had in fact started the rumor about him (i.e., Chambers) making the suit. Apparently, Short did not ask Chambers about the “Burbank Bigfoot” incident, nor did he interview Landis for his version of the story ([Chorvinsky 1996](#)). Short and Coleman remain convinced that the film is not of a man in an ape suit but is footage of a genuine Bigfoot.

According to David J. Daegling and Daniel O. Schmitt, “it is not possible to evaluate the identity of the film subject with any confidence” (Daegling 1999). Their argument centers on uncertainties in subject and camera positions, and the reproducibility of the compliant gait by humans matching the speed and stride of the film subject.

According to Michael Wallace, Bigfoot is a hoax that was launched in August 1958 by his father [Ray L. Wallace](#) (1918-2002), an inveterate prankster. Shortly after Ray's death, Michael revealed the details of the hoax, which were reported widely in the press. Ray had a friend carve him 16-inch-long feet that he could strap on and make prints with. Wallace owned a construction company that built logging roads at the time and he set the prints around one of his bulldozers in Humboldt County. Jerry Crew, a bulldozer operator, reported the prints and *The Humboldt Times* ran a front-page story about “Bigfoot.” The legend was born. However, a former logger, 71-year-old John Auman, [claims](#) Wallace left the giant footprints to scare away thieves and vandals who'd been targeting his vehicles. His hoaxes didn't began until after he'd seen what a stir he'd created.



Ray Wallace's nephew Dale with the carved feet

Copyright 2002 [Dave Rubert Photography](#)

Over the years, Ray Wallace produced Bigfoot audio recordings, films, and photographs. At one time, he even put out a press release offering \$1 million for a baby Bigfoot. He published one of his photos as a poster depicting Bigfoot having lunch with other animals. He also published photos and films of Bigfeet eating elk, frogs, and cereal. Michael Wallace claims that his mother told him that she participated in some of the pranks and had been photographed in a Bigfoot suit. Chorvinsky claims that Ray told him that the Patterson film was a hoax and that he had alerted Patterson of the sighting at Bluff Creek. According to Chorvinsky, Ray knew who was in the Patterson suit, but said he had nothing to do with it (Young, Bob. 2002. "Lovable trickster created a monster with Bigfoot hoax," [The Seattle Times](#), December 5).

The news of Wallace's 1958 hoax did not daunt Bigfoot enthusiasts such as [Loren Coleman](#) or Idaho State University anatomy professor [Dr. Jeff Meldrum](#), who has casts of 40 to 50 big footprints. Coleman asks

Why is the testimony of an admitted liar, now being feted by a skeptical magician as the truth, having the newspapers believe it all? The media mixing of the lies and rumors with a few facts in the Wallace story is pushing this one to the edge. This is Ray Wallace's ultimate hoax and bitter seed.

Meldrum believes such a large number of casts couldn't all be hoaxes (ibid.). The same has been said about the large number of [crop circles](#), but it appears that hoaxers are not deterred from their activities by the belief that their numbers are small.

The interest in Bigfoot seems to have been succinctly captured in the saying of an old Sherpa: *There is a Yeti in the back of everyone's mind; only the blessed are not haunted by it.*

further reading

[reader comments](#)

- [The Makeup Man and the Monster: John Chambers and the Patterson Bigfoot Suit An Investigation](#) by Mark Chorvinsky
- [Film director John Landis goes public concerning makeup master john chambers' involvement in the famous patterson bigfoot film](#) by Mark Chorvinsky
- [The Patterson Film](#) - D. Trull
- [The Grizzly Truth about Yeti- Stalking the Abominable Snow-Bear](#) by D. Trull
- [Bigfoot](#) - D. Trull
- [The Bigfoot-Giganto Theory](#) by Matt Moneymaker
- [Bigfoot Links \(for true believers\)](#)
- [The Bigfoot Field Research Organization](#)
- [From the Teeth of the Dragon - *Gigantopithecus blacki*](#) by Eric Pettifor

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[The Bible Code](#)

[bioching](#)



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paranormal

An event or perception is said to be paranormal if it involves forces or agencies that are beyond scientific explanation. Many paranormal events are said to be experienced only by those with [psychic](#) powers, such as [extrasensory perception](#) or [psychokinesis](#).

Some events are perceived as paranormal due to ignorance. For example, parapsychologist [Charles Tart](#) explains how he first got interested in the paranormal:

There was a time, years ago, when I was highly skeptical of any paranormal claims of any kind. One of the things that convinced me that there must be something to this is a strange experience that I personally went through. It was wartime. I was at Berkeley, California, and everybody was working overtime....the young lady who was my assistant at the time worked with me until very late this one night. She finally went home; I went home. Then the very next day she came in, all excited....She reported that during this night she had suddenly sat bolt upright in her bed, convinced that something terrible had happened. "I had a terrible sense of foreboding," she said, but she did not know what had happened. "I immediately swung out of bed and went over to the window and looked outside to see if I could see anything that might have happened like an accident. I was just turning away from the window and suddenly the window shook violently. I couldn't understand that. I went back to bed, woke up the next morning and listened to the radio." A munitions ship at Port Chicago had exploded. It literally took Port Chicago off the map. It leveled the entire town and over 300 people were killed....She said she had sensed the moment when all these people were snuffed out in this mighty explosion. How would she have suddenly become terrified, jumped out of bed, gone to the window, and then - from 35 miles away, the shock wave had reached Berkeley and shook the window?

There is no need to perceive this event as paranormal, according to [James Randi](#), who recorded this story. A shock wave travels at different speeds through the ground and through the air. The difference over 35 miles would be 8 seconds. Most likely the shaking earth woke up the young lady in a fright and 8 seconds later the window shook. She and Tart assumed that the explosion took place when the window shook, making her experience

inexplicable by the known laws of physics. This explanation only makes sense, however, if one is ignorant of the known laws of physics.

See related entries on [astral projection](#), [auras](#), [Edgar Cayce](#), [clairaudience](#), [clairvoyance](#), [dermo-optical perception](#), [dreams](#), [extraordinary human functions](#), [ganzfeld experiment](#), [mentalists](#), [Raymond Moody](#), [optional starting and stopping](#), [parapsychology](#), [precognition](#), [psi](#), [psi-missing](#), [psychic](#), [psychic photography](#), [psychic surgery](#), [psychokinesis](#), [remote viewing](#), [retrocognition](#), [retrospective falsification](#), [séance](#), [shotgunning](#), [Charles Tart](#), [telepathy](#), and [James Van Praagh](#).

further reading

[reader comments \(psi\)](#)

- [RANDI AT CALTECH: A REPORT FROM THE PARANORMAL TRENCHES](#) By James "The Amazing" Randi
- [Twenty things to consider when regarding paranormal phenomenon](#) by James Randi
- [The Evidence for Psychic Functioning: Claims vs. Reality](#) by Ray Hyman

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[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

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[paradigm](#)

[parapsychology](#)



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cryptozoology

Cryptozoology is, literally, *the study of hidden animals*. It is the study of such creatures as the Australian [bunyips](#), [Bigfoot](#), [the chupacabra](#), and the [Loch Ness monster](#). It is not a recognized branch of the science of zoology.

Cryptozoology relies heavily upon testimonials and circumstantial evidence in the form of legends and folklore, and the stories and alleged sightings of mysterious beasts by indigenous peoples, explorers, and travelers. Since cryptozoologists spend most of their energy trying to establish the *existence* of creatures, rather than examining actual animals, they are more akin to [psi](#) researchers than to zoologists. Expertise in zoology, however, is asserted to be a necessity for work in cryptozoology, according to Dr. Bernard Heuvelmans, who coined the term to describe his investigations of animals unknown to science.

See **related entries** under the [cryptozoology topical listings](#).

further reading

- [Weird Predators Petting Zoo](#)
- [Ben Roesch's Cryptozoology Page](#)
- [Ron Schaffner's Cryptozoology Page](#)
- [Pib Burns' page on cryptozoology](#)
- ["The Serpent's" Tale](#) by Kurt W. Burchfiel (*Strange Magazine*)
- [Cryptozoology Publications](#)
- [Review of Loren Coleman's Cryptozoology A to Z](#) by Steve Burgess (Salon)

[Bauer, Henry H. "Cryptozoology," in *The Encyclopedia of the Paranormal*, ed. G. Stein \(Amherst, N.Y.: Prometheus Books, 1996\).](#)

[Heuvelmans, Bernard, Dr., *On the Track of Unknown Animals*, 3rd ed. \(London: Kegan Paul International Limited, 1955\).](#)

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[cryptomnesia](#)

[crystals](#)



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reader comments:

Bigfoot

18 Sep 2000

Hello..my name is Rick. In the early 70s my sister and I saw 2 bigfoot. We were about 15 yrs. old and were not bigfoot enthusiasts. We saw them up close. Being skeptical doesn't mean you're looking for the truth..it usually just means your coming up with alternative explanations..bigfoot has been reported for hundreds of years.. it must be some hoax! What galls me the most is your hiding behind pseudo science to "prove" what you don't believe anyway..don't make science the universal pill for your ignorance and beliefs. You can sit in an office all day and "think" of very plausible explanations for anything. This doesn't make them true or untrue. Now tell me this..If sometime in the near future it becomes fact that bigfoot is real, what will all your explanations amount to? I've never heard of a bigfoot being reported in or near the city. Why? Why do people see these things only where they would really be? If someone tells me they saw a bigfoot downtown, even I would be skeptical. And why, for example, do bigfoot sightings all come from the southeastern part of Ohio? No sightings in western Ohio. Does that mean easterners are prone to hallucinations? What a theory you'd have there. Now suppose someone from western Ohio driving through eastern Ohio sees a bigfoot...They've never seen one at home, but they see one now...???? open up your mind..it's a wonderful thing.

reply: You must be from the southeastern part of Ohio?

18 Sep 2000

I almost fell off my chair when I read the bigfoot believer's comment:

"... there are never any bear corpses or bones found either, but we know they exist. Nothing goes to waste in the wild...it's all eaten."

Apparently this person has never been to a museum of natural history or even for a walk in the woods. There are two bear skulls in a very small museum in my area, along with skeletons of a mastodon and several dinosaurs that obviously did go to waste.

Karl Black Belleville, MI

10 Jan 1999

You wrote that a Hollywood director [John Landis] claimed that the Patterson film was of an actor wearing a costume designed by John Chambers. Just recently I read an interview with Mr. Chambers where he was incredulous that anyone would believe this claim. He said that the technology that would be needed to even attempt this kind of "suit" certainly was not available in 1967, and that the Planet of the Apes costumes look pathetic if compared to what is on the Patterson film. That is certainly true.

reply: From what I understand, Chambers is not well and is living in a nursing home. I don't know what interview you are referring to, but he is being unnecessarily modest or disingenuous if he claimed that the costumes for *Planet of the Apes* "look pathetic if compared to what is on the Patterson film." Those costumes are fantastic and very realistic, even when viewed in close, as is often the case in the movie.

I'm always surprised [though I shouldn't be by this time] that people still continue to doubt what their eyes clearly see. That is not a costume. And, since thousands of people have already seen this creature and continue to see it, and have seen it for many years past, how can anyone claim this to be a hoax? That's some hoax . . .

reply: There is an old saying: *She who thinks the camera doesn't lie, doesn't think.* I don't doubt that the people who make sightings of Bigfoot, Nessie, Elvis, etc., are, for the most part, genuinely convinced they saw the real thing. However, if one understands the nature of perception, one should realize that what these viewers are absolutely certain of is a subjective construction built up out of the interpretation of their observations. Many sightings are due to [pareidolia](#).

The fact that many people share the same delusion does not make the delusion any less of a delusion (witness the millions of children who see [Santa Claus](#) each year). Also, no one claims that every sighting is due to a hoax. Some are misinterpretations of visible perceptions, such as large animals or footprints enlarged due to snow melting, etc.

Another thing that makes me laugh is the question about why there are never any Bigfoot bones or dead bodies found. The response to this is always the same, and that is to point out that there are never any bear corpses or bones found either, but we know they exist. Nothing goes to waste in the wild...it's all eaten.

reply: I don't frequent the habitats of bears, so I'll have to take your word for it that no one has ever found a bear corpse or bear bones (though I must admit that I doubt that this is true). I have seen grizzly bear scat, however. It was pointed out to me by a Yellowstone ranger. Why is there no Bigfoot scat? And why has no one ever spotted a baby or adolescent

Bigfoot, or a female with infant Bigfoot?

I just wanted to pass this info on to you. I believe that if you print something, you should make sure that it's the truth. I find it odd that you would not have taken the logical [and obvious] next step and searched for Mr. Chambers' reply to this statement. Or, perhaps you already knew about Mr. Chambers' response but didn't want to add it to your article for obvious reasons.

Elizabeth Pitts

reply: Given your deep desire to help others such as myself find the truth, I am surprised that you did not mention who did this interview and where our readers can find it. The truth is often elusive, but my guess is that Patterson hoaxed us or was hoaxed by someone himself.



[Bigfoot](#)

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bio-ching

Bio-ching is the union of the modern [pseudoscience](#) of [biorhythms](#) and the ancient superstitious mysticism of the *I Ching*. Bio-ching was created by [Roderic Sorrell, D.D.](#) and [Amy Max Sorrell, D.D.](#), who describe themselves as "therapists" on their twin websites. The Sorrells use a computer program that spits out something from the *I Ching* for each of the 512 biorhythmic combos of their system. In short, they've added an electronic fortune cookie (with equivalent wisdom) to the biorhythm chart.

They prepared for their great innovation by living on a houseboat in San Francisco Bay for several years, "sampling the New Age Emporium that is California." There they learned of "the meridian energy of [acupuncture](#), the power of the deep massage of [Rolfing](#)" and "the esoteric practices of Taoist meditation." They studied "herbal healing" and "were introduced to the newly emerging electronic approaches to the mind: sound and light stimulation of the mind's beta, [alpha](#), theta and delta waves, and biofeedback." On the side, they became [reiki](#) masters.

The Sorrells describe themselves as deliriously happy and at peace with the world in their new home of Truth or Consequences, New Mexico. They want to make you happy, too, and help you achieve inner tranquility or fix whatever physical or spiritual inadequacy you might have. So, they are offering private retreats (minimum of 3 days) for couples, partners and friends for \$250 per day per person. In addition to spiritual counseling, you get room and board for this price. For \$500 more you can do a 3-day retreat on their houseboat at a nearby lake. While there ask them about their union of water and reiki to form the new therapy of [aqua-reiki](#). Ask about their "sound and light machine," their "bio-feedback machine," and their "[subliminal](#) tapes."


Bio-ching might well be called a *folie à deux deux*.*

*A *folie à deux* is the presence of the same delusion in two persons closely associated with one another. When two deluded persons bring together *two* follies to form a new delusion we have the classic *folie à deux deux*.

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I Ching

 The *I Ching* or *Book of Changes* is an ancient Chinese text used as an [oracle](#) to find out the answers to troubling questions such as "what does the future hold for me?" The book consists of 64 "hexagrams," each consisting of six broken or unbroken lines. (Sixty-four equals 2^6 and is the number of possible combinations of six broken or unbroken lines.) The lines represent the two primal cosmic principles in the universe, [yin and yang](#). Why the I Ching has six lines, however, is a mystery, since the ancient Chinese believed there were *five* elements (wood, fire, earth, metal, and water), *five* planets, *five* seasons, *five* senses, as well as *five* basic colors, sounds and tastes.

The hidden cosmic meanings of the hexagrams were divined many years ago by Chinese philosopher-priests in tune with the *tao* (Chinese for *path* or *way*). They consist of such bits of fortune cookie wisdom as: "Treading upon the tail of the tiger. It does not bite the man." Or, "the superior man discriminates between high and low."

The *I Ching* is consulted in several ways. One way is by flipping coins. Each coin is assigned a number. The coins are tossed and the numbers added up to determine the hexagram. Another method involves a complex divination based on dividing up bundles of yarrow stalks. One can also consult the oracle either on the [Internet](#) or on a [CD](#).

It is not too difficult to understand why ancient peoples would look to random coin tosses, plant stalks, bird's entrails, the stars, lines on burnt bones, etc., to help them decide what to do next with their lives. They had no science, little knowledge of the nature of things, and not much more to guide them in this life than their own limited experiences and the teachings of superstitious mythmakers and storytellers. It is not too difficult to imagine why the mythmakers would come up with such methods of divination: you can make money from it and, if you are clever and vague enough, you can gain a reputation for wisdom and it can be difficult to prove you wrong.

Also, such beliefs lend themselves to confirmatory experiences and are bound to have many satisfied customers. Anything that vaguely resembles an accurate prediction will be significant. What would count as counter-evidence is not clear and is certainly not actively sought out or attended to. Some prophecies, too, become self-fulfilling.

Furthermore, the oracle satisfies a need which many people seem to have: the need to be told what to do with their lives. The same is true today, though it may be disappointing to some graduates of Princeton University to see their

alma mater's name associated with the [CD-ROM version of the I Ching](#).
Business is business. And today there is hardly any business as booming as
the business of metaphysical and mystical codswallop.

See **related entries** on [oracles](#) and [stichomancy](#).

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[the lca stones](#)

[ideomotor effect](#)



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[Sex, Crackers and
Subliminal Ads](#)
[March 31, 2003 By
Eleftheria Parpis](#)

subliminal

The subliminal is below the liminal (the smallest detectable sensation).

Anything truly below the level of detectable sensation could not, by definition, be perceived. However, the subliminal is generally said to be below the threshold of *conscious* perception. There is a widespread belief, not strongly supported by empirical research, that without being aware of its presence or content, a person's behavior can be significantly affected by subliminal messages. Thus, it is believed that one can influence behavior by surreptitiously appealing to the [subconscious mind](#) with words and images. If this were true, then advertisers could manipulate consumer behavior by hiding subliminal messages in their ads. The government, or Aunt Hilda for that matter, could control our minds and bodies by secretly communicating to us subliminally. Learners could learn while listening to music embedded with subliminal messages. Unfortunately, "...years of research has resulted in the demonstration of some very limited effects of subliminal stimulation" and no support for its efficaciousness in behavior modification (Hines, 312).

The fact that there is almost no empirical support for the usefulness of subliminal messaging has not prevented numerous industries from producing and marketing tapes which allegedly communicate directly with the unconscious mind, encouraging the "listener" not to steal, or coaching the "listener" to have courage or believe in his or her power to accomplish great things. Consumers spend more than \$50 million each year on subliminal self-help products (*Journal of Advertising Research*, reported by Dennis Love, *Sacramento Bee*, 9-14-2000). A place called [Hynotictapes.com](#) offers a wide array of such tapes developed by James H. Schmelter, a hypnotherapist with an MBA and self-proclaimed expertise in synergistic science. If Schmelter's stuff is not to your liking, try [Mindwriter Subliminals... A Breakthrough In Human Reprogramming.](#)

It is true that we can perceive things even though we are not conscious of perceiving them. However, for those who put messages in tapes and then record music over the messages so that the messages are drowned out by the music or other sounds, it might be useful to remember that if the messages are drowned out by other sounds, the only perceptions one can have are of the sounds drowning out the messages. There is no evidence of anyone hearing a message which is buried beneath layers of other sounds to the point where the message does not distinctly stand out. Of course, if the message distinctly stood out, it would not be subliminal.

The belief in the power of subliminal messaging to manipulate behavior seems to have originated in 1957 with James Vicary, an advertising promoter

who claimed to increase popcorn sales by some 58% and Coke sales by some 18% in a New Jersey movie theater simply by flashing very briefly the messages "Drink Coca-Cola" and "Hungry - Eat Popcorn." Even though the claim has been shown to be a hoax, and even though no one has been able to duplicate the event, belief in the legend lingers. This story and several others were retold by Vance Packard in *The Hidden Persuaders* (1957), a book that became required reading for a generation of college students.

Belief in subliminal messaging reached a surreal apex in 1980 with the publication of *The Clam-Plate Orgy and Other Subliminals the Media Use to Manipulate Your Behavior* by Wilson Bryan Key. The book has been reissued under the sexier title: *Subliminal Adventures in Erotic Art*. Key claims that advertisers use subliminal messaging of a very serious sexual nature in order to manipulate behavior, including imbedding sexy figures and the word 'sex' in images of such things as ice cubes and food. While carefully examining a Howard Johnson's menu, Key saw that the plate of clams pictured on the menu was actually the portrayal of a sexual orgy which included various people and a donkey. Among Key's many unfounded claims is that the unconscious mind processes subliminal messages at the speed of light. Actually, the fastest brain process chugs along at some 40 m.p.h. (Hines).

Despite the fact that there is no body of empirical support for the notion that subliminal advertising is effective, in 1974 the Federal Communications Commission (FCC) issued an order saying that broadcast outlets that knowingly carry subliminal ads are operating "contrary to the public interest." In September 2000, Senators Ron Wyden of Oregon and John Breaux of Louisiana complained to the FCC about a Republican ad that flashed the word "RATS" (or "BUREAUCRATS") across the screen for 1/30 of a second. "We have reason to believe that broadcasters are airing television advertisements that contain subliminal messages in violation of the public interest," they said, apparently oblivious to the fact that something which can't be registered by the brain is unlikely to have any effect on viewers and is unlikely to violate anything except the reasonable bounds of credulity.

See related entry on [hypnosis](#), [mind control](#), and [pareidolia](#).

further reading

[reader comments](#)

- [Advertising industry sees hidden-message ads as fiction](#)
- [Fear of subliminal advertising is irrational](#)
- [The Subliminal Scares](#) by John Elliston (Parascope)
- [University of Texas School of Advertising Bibliography on Subliminal](#)

[Advertising](#)

- [Layne Wallace's research](#)
- [Are We Already Learning In A Subliminal Way?](#) by Melvin D. Saunders (Repeats the Vicary hoax as if it were fact, among other irresponsible things.)
- [Subliminal CIA](#)
- [Do Disney movies contain subliminal erotica?](#)
- [Is the Web sending you subliminal ads?](#)
- [Rats infest the GOP Did the Republicans engage in subliminal advertising tactics with their Gore attack ad?](#) by Alicia Montgomery, Salon.com

[Hines, Terence. *Pseudoscience and the Paranormal* \(Buffalo, NY: Prometheus Books, 1990\).](#)

[Volkey, J. and J. Read.](#) "Subliminal Messages: Between the Devil and the Media," *American Psychologist* (1985), pp. 1231-1239.

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[substance abuse treatment](#) 

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orgone energy & Wilhelm Reich (1897-1957)

...unlike Sir Isaac Newton, Reich was not willing to stand upon the shoulders of giants. He stood only as high as his own experiences would allow, and from this low perch imagined himself to be a lone eagle soaring higher than any other man had ever reached. --[Roger M. Wilcox](#)

Orgone energy is an alleged type of "Primordial Cosmic Energy" discovered by Freudian psychoanalyst Wilhelm Reich in the late 1930s. Reich claimed that orgone energy is omnipresent and accounts for such things as the color of the sky, gravity, galaxies, the failure of most political revolutions, and a good orgasm. In living beings, orgone is called bio-energy or Life Energy. Reich believed that orgone energy is "demonstrable visually, thermically, electroscopically and by means of Geiger-Mueller counters."* However, only true believers in orgone energy (i.e., *orgonomists* practicing the science of *orgonomy*) have been able to find success with the demonstrations.

Reich claimed to have created a new science (orgonomy) and to have discovered other entities, such as *bions*, which to this day only orgonomists can detect. Bions are alleged vesicles of orgone energy which are neither living nor non-living, but transitional beings.

Reich died on November 3, 1957, in the Federal Penitentiary at Lewisburg, Pennsylvania, where he was sent for criminal contempt. The criminal charge was levied because Reich refused to obey an injunction against selling quack medical devices such as the [Orgone Accumulator and orgone "shooters,"](#) devices which allegedly could collect and distribute orgone energy, thereby making possible the cure for just about any medical disorder except, perhaps, megalomania and self-delusion.

The Food and Drug Administration not only declared that there is no such thing as orgone energy, they had some of Reich's books burned--a sure-fire way to ignite interest in somebody. If the government burned his books, Reich must have been on to something BIG!!! Or so one theory goes. There is another theory which says that some government decisions look stupid because they are made by incompetent people.

Despite having no status in the scientific community, Reich's ideas have been passed on by a number of devoted followers led by Elsworth F. Baker, M.D., founder of [The American College of Orgonomy](#), and Dr. James DeMeo of [The Orgone Biophysical Research Laboratory, Inc.](#), located in Ashland,

Oregon. Baker's successors (he died in 1985) and DeMeo continue to defend both Reich the scientist and orgonomy. Reich saw himself as a persecuted genius and considered the critics who ridiculed him to be ignorant fools.

See related entry on [pathological science](#) and [pseudoscience](#).

further reading

[reader comments](#)

- [A Skeptical Scrutiny of the Works and Theories of WILHELM REICH](#) By Roger M. Wilcox
- [Orgone Therapy \(character-analytic vegetotherapy\)](#) By Roger M. Wilcox
- [The Orgone Blanket](#)
- [The American College of Orgonomy](#)
- [Wilhelm Reich and Orgone Energy](#)
- [Wilhelm Reich & Orgone Biophysics by Juan Schoch](#)
- [RESPONSE TO RECENT ARTICLES IN SKEPTIC MAGAZINE By James DeMeo, Ph.D.](#)

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Magnetic Mattress
Pad Sellers](#) by
Stephen Barrett,
M.D.

[Magnetic Stimulation
Relieves Depression](#)

[Magnetic mattress
pad: Rude awakening](#)
By Edgar Sanchez --
Sac Bee July 30, 2002

magnet therapy

"I know of no scientist who takes this claim seriously...It's another fad. They come and go like copper bracelets and crystals and all of these things, and this one will pass too." --Robert Park of the American Physical Society.

"Iron atoms in a magnet are crammed together in a solid state about one atom apart from one another. In your blood only four iron atoms are allocated to each hemoglobin molecule, and they are separated by distances too great to form a magnet. This is easily tested by pricking your finger and placing a drop of your blood next to a magnet. " -- Michael Shermer*

Magnet therapy is a type of ["alternative" medicine](#) which claims that magnetic fields have healing powers. Some claim that magnets can help broken bones heal faster, but most of the advocacy comes from those who claim that magnets relieve pain. Most of the support for these notions is in the form of [testimonials](#) and anecdotes, and can be attributed to "placebo effects and other effects accompanying their use" (Livingston 1998). There is almost no scientific evidence supporting magnet therapy. One highly publicized exception is a double-blind study done at [Baylor College of Medicine](#) which compared the effects of magnets and sham magnets on the knee pain of 50 post-polio patients. The experimental group reported a significantly greater reduction in pain than the control group. No replication of the study has yet been done.

A less publicized [study at the New York College of Podiatric Medicine](#) found that magnets did not have any effect on healing heel pain. Over a 4-week period, 19 patients wore a molded insole containing a magnetic foil, while 15 patients wore the same type of insole with no magnetic foil. In both groups, 60% reported improvement.

Despite the fact that there has been virtually no scientific testing of magnet therapy, a growing industry is producing magnetic bracelets, bands, insoles, back braces, mattresses, etc., and claiming miraculous powers for their products. The magnet market may be approaching \$150 million annually (Collie). (Lerner claims that U.S. sales are near the half billion mark and that world-wide magnetic therapy is bringing in nearly twice as much.) Magnets are becoming the gimmick of choice of chiropractors and other ["pain specialists"](#). Former potter, Marlynn Chetkof sells Russell Biomagnetic products, and advises that magnets are better than painkillers or living with pain (Collie). Even a bankrupt building contractor, Rick Jones, is trying to cash in on the current magnet craze. He has formed a company called Optimum Health Technologies, Inc. to market his ["Magnassager,"](#) a hand-

held vibrator with magnets retailing for \$489. Jones claims his invention "isn't just another massage device." He says it uses an electromagnetic field to help circulate blood while it's massaging the muscles. Jones raised \$300,000 from investors and spent it all on "product development and marketing." Not a cent was spent on scientific testing of the device before bringing it to market, though he did give \$20,000 to a physiologist to evaluate his device "to make sure that it was not gimmicky" (Kasler).

The claim that magnets help "circulate blood" is a common one among supporters of magnet therapy, but there is no scientific evidence that magnets do anything to the blood. Even though the evidence is lacking that magnets have anything other than a placebo effect, theories abound as to how they work. Some say magnets are like a [shiatsu](#) massage; some claim magnets affect the iron in red blood cells; still others claim that magnets create an alkaline reaction in the body (Collie). Bill Roper, head of Magnetherapy claims that "Magnets don't cure or heal anything. All they do is set your body back to normal so the healing process can begin" (Collie). How he knows this is not clear.

Some supporters of magnetic therapy seem to base their belief on a metaphysical assumption that all illness is due to some sort of imbalance or disharmony in energy. The balance or flow of electromagnetic energy must be restored to restore health, and magnets are thought to be able to do this.*

The most rabid advocates of magnet therapy are athletes such as Jim Colbert and John Huston (golfers), Dan Marino (football) and Lindsay Davenport (tennis). Their beliefs are based on little more than [post hoc](#) reasoning. It is possible that the relief a magnetic belt gives to a golfer with a back problem, however, is not simply a function of the [placebo effect](#) or [the regressive fallacy](#). It may well be due to the support or added heat the belt provides. The product might work just as well without the magnets. However, athletes are not given to scientific testing any more than are the manufacturers of magnetic gimmickry.

Athletes aren't the only ones enamored of the power of magnets to heal. Dr. Richard Rogachefsky, an orthopedic surgeon at the University of Miami, claims to have used magnets on about 600 patients, including [people who have been shot](#). He says that the magnets "accelerate the healing process." His evidence? He can tell by looking at X-rays. [Dr. William Jarvis](#) is skeptical. He says that "Any doctor who relies on clinical impressions, on what they think they see, is a fool" (Collie). There is a good reason scientists do [controlled double-blind studies](#) to test causal efficacy: to prevent [self-deception](#).

[Dr. Mark S. George](#), an associate professor of psychiatry, neurology and radiology at the Medical University of South Carolina in Charleston, did a controlled experiment on the use of magnets to treat depression. He only

studied twelve patients for two weeks, however, so his results are of little significance.

While sales of magnetic products keep rising, there are a few scientific studies going on. The University of Virginia is testing magnets on sufferers of fibromyalgia. The Universities of Miami and Kentucky are testing magnets on people with carpal tunnel syndrome (Collie). At present, however, we have no good reason to believe that magnets have any more healing power than [crystals](#) or copper bracelets.

See **related entries** on [alternative medicine](#), [the post hoc fallacy](#), and [the regressive fallacy](#).

further reading

[reader comments](#)

- [Magnet study contradicts "increased circulation" claim](#) - Quackwatch newsletter 9/17/2002
- [Magnets Unplugged](#) by Sharon Lerner (*Village Voice*, March 2001)
- [Magnetic and Electromagnetic Therapy](#) by David W. Ramey, DVM
- [Magnet Therapy](#) by Dr. Stephen Barrett
- ["Why Bogus Therapies Often Seem to Work"](#) by Barry L. Beyerstein, Ph.D.
- ["Magnetize Your Beverages"](#) by Stephen Barrett, M.D.
- ["magnet therapy"](#) in Jack Raso's *Dictionary of Metaphysical Healthcare*
- [Magnet Therapy Relieves Post-Polio Pain](#)
- [Revolutionary New Insoles Combine Five Forms Of Pseudoscience](#)
- [Biomagnetic Pseudoscience and Nonsense Claims](#) by Miguel A. Sabadell
- [Little Scientific Basis for Magnets' Pain Relief](#) by Don Colburn
- [Magnetic Water and Fuel Treatment: Myth, Magic, or Mainstream Science?](#) by Mike R. Powell, *Skeptical Inquirer*, Jan/Feb 1998.
- [Electromagnetic Therapy](#): University of Maryland School of Medicine
- [Study on Magnet Therapy Shows Limited Potential for Pain Relief](#)

Collie, Ashley Jude. "Let the Force Be With You," *American Way*, March 15, 1999.

Franklin, Benjamin and Antoine Lavoisier. "Report of the Commissioners Charged by the King to Examine Animal Magnetism" (reprinted in an English translation in *Skeptic*, Vol. 4, No. 3). The report was instituted by French king Louis XVI in 1784.

Kasler, Dale. "Inside Business," *Sacramento Bee*, June 29, 1998.

Livingston, James D. "[Magnetic Therapy: Plausible Attraction?](#)" *Skeptical Inquirer* (July/August 1998).

[Livingston, James D. *Driving Force: The Natural Magic of Magnets* \(Harvard University Press, 1997\).](#)

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SkepDic.com

 bioharmonics

reader comments:

bioharmonics

3 Jan 2000

Dear Mr. Carroll,

Although we encourage free speech and the right to opinions voiced in well researched articles on the internet, we feel that the link to BioHarmonics on your website is highly inappropriate. You have had a link to bioharmonics.com on a page entitled "Suggestions for future entries in the Skeptic's Dictionary" for over two years now. After pursuing the articles posted in the Skeptic's Dictionary, we have found that they tend to be biased against energy healing research of various types. Our link placement on your site suggests to visitors that we are being investigated for some kind of quackery or other fraudulent behavior which is not the case. Since we have not once been contacted by you, we feel that you are intentionally misleading the public and that your actions should at the very least create skepticism about your intentions. You have had plenty of time to research BioHarmonics and write your article. Yet, you have not initiated contact with us to date, nor have you ever given any indication that you are actually planning to do anything other than sully our reputation by placing the link on your page. Therefore, we ask that you remove the link from your site. Thank you.

Wishing you wellness,

Linda Townsend

BioHarmonics Researcher and Consultant

Cornerstone Enterprises International, SA

reply: Your wish is my command. Bioharmonics and the BioHarmonizer have been removed from the "future entries" page and now have a place in the SD itself along with other pseudoscientific New Age quack theories and devices.

By the way, the page listing "Suggestions for future entries" is just that: a page of suggestions. Readers suggest the sites and I post them on this page if they seem like the kind of thing I might some day write an entry for. The list keeps getting longer instead of shorter. Periodically, I thin the list, as when I actually write an entry on a suggested topic or remove items I deem inappropriate. Because the material to write about is infinite and my time finite I often will let a suggestion sit for years until someone, such as yourself, motivates me to investigate it at a time when I have a few hours to spare.

4 Jan 2000

Thank you for taking the time to write your article. Criticisms of scientific reports are considered part of the refining process and actually improve the final results. When the website was reconstructed recently, the case studies were not uploaded. We are working on updating them and adding new case studies as well. I am also in the process of preparing a book on BioHarmonics as well.

In your message you stated ". . . motivates me to investigate it at a time when I have a few hours to spare." I am most interested in being interviewed by you when you find the time. A respected investigative reporter usually spends time and effort in deriving at the truth. I personally had to devote several years of research and documentation for my articles.

Bottom line is anyone can go the BioHarmonics website and make their own decision regarding the information presented there. Any hack can pick apart a few published articles but responsible writers have higher ethics. What investment beyond a few hours writing time have you really made in preparing your article with its recommendations? Have all the articles in "The Skeptics Dictionary" been based on this lack of commitment?

Wishing you wellness,

Linda Townsend

BioHarmonics Researcher and Consultant

reply: My investment includes a few decades of studying, observing, reading, investigating, discussing, etc., numerous claims regarding paranormal, supernatural, occult and quasi-metaphysical New Age claims. I've also researched many pseudoscientific theories over the past thirty years. Your work bears all the marks of pseudoscience on its sleeve. Any critical thinker with a good grasp of scientific methodologies and theories would notice almost immediately that your work is not scientific and offers little hope of being based on anything other than metaphysical claptrap garbed in jargon to make it appear reasonably informed.

In case you are wondering what I am referring to, I mean:

- 1. You are unclear regarding basic concepts. You give no clear definition of 'bioenergy'.**
- 2. You show you do not understand biochemistry by your writing, viz., "if bioenergy and biochemistry have a mutual influence on each other, correcting bioenergy irregularities may also effect balancing the biochemistry." Bioenergy (as understood by biochemists) can't *influence* biochemistry any more than nuclear power plants can influence nuclear physics.**
- 3. You show you do not understand that empirical and metaphysical**

concepts are different types. Your claims about layers of bioenergy and the connection with chi have no empirical basis.

- 4. Your thinking is metaphorical, not scientific. Your comparisons of the body to a piano regarding harmony and the body to a magnet regarding "bipolarity" have no basis in fact.**
- 5. The machine you are selling, which allegedly harmonizes bioenergy, has many analogues in the history of pseudoscience. You posit an undetectable energy, declare it is defective, claim you have what can set it aright, then offer a device that is impossible to monitor except by subjective validation. (Are your case studies going to be reports of people who say they used the machine and boy do they feel better now?)**

Finally, I am having difficulty in understanding why you keep baiting me. I could go on for a few more hours as to why I don't feel a need to spend any extensive time studying your work to be reasonably assured that it is worthless.

Why would you want to be interviewed by a hack who you know will rip you to shreds?

8 Jan 2000

Just a quick note to tell you that I have been enjoying your site for the last few years and I applaud your informative and well-crafted dissections of various pseudoscience claims.

I was prompted to write after reading your article on Linda Townsend's BioHarmonics. Visiting her site I not only found the annoying, buttonless pop-up window (a feature usually reserved for seedy adult web sites) but looking at the source I noticed that she has included META keyword tags listing nearly every type of cancer known to man, and maybe some that aren't. She even includes the terms 'dog cancer' and 'canine cancer' along with the names of some well-known cancer research centers. All in an obvious attempt to get her site listed on search engines to snare unsuspecting individuals seeking help or information.

All in all, it's a truly shameless attempt to take advantage of people's misfortunes and ignorance. At least I did find her email address so now I can share with her all the wonderful, unsolicited email I receive regarding miracle cures or sure-fire profit making opportunities that will help her continue her noble efforts.

Keep up the excellent work,
Mike Hall

reply: You're right. Here is what she has in her meta tag: <META HTTP-EQUIV="keywords" CONTENT="cancer, breast cancer, skin cancer, lung cancer, prostate cancer, colon cancer, american cancer society, ovarian cancer, cancer diagnosis, cervical cancer, cancer treatment, liver cancer, bone cancer, testicular cancer, national cancer institute, pancreatic cancer, thyroid cancer, bladder cancer, stomach cancer, prostate cancer, cancer research, brain cancer, throat cancer, kidney cancer, oral cancer, breast cancer prevention, mouth cancer, esophageal cancer, uterine cancer, bowel cancer, prostate cancer treatment, cancer statistics, inflammatory breast cancer, pancreas cancer, canadian cancer society, rectal cancer, endometrial cancer, colorectal cancer, penis cancer, breast cancer treatment, www.cancer.org, lung cancer picture, cancer cure, cancer society, www.cancer.com, cancer center, type of cancer, breast cancer symptom, cancer picture, cancer support, colon cancer symptom, tongue cancer, alternative cancer treatment, small cell lung cancer, skin cancer picture, cancer symptom, cancer drug, lung cancer symptom, gastric cancer, esophagus cancer, testicle cancer, bone marrow cancer, ovarian cancer symptom, breast cancer picture, lymph node cancer, cancer medicine, cancer diet, cancer information, small cell cancer, metastatic breast cancer, cancer cause, md anderson cancer center, lip cancer, male breast cancer, canine cancer, american cancer association, cervix cancer, cancer prevention, dog cancer, cancer genetics, fox chase cancer center, neck cancer, dana farber cancer institute, american cancer, melanoma cancer, cancer cell, squamous cell cancer, disease, lyme disease, sexually transmitted disease, center for disease control, heart disease, crohn's disease, parkinson's disease, liver disease, grave disease, fifth disease, parkinsons disease, alzheimer's disease, mad cow disease, crohns disease, lymes disease, skin disease, kidney disease, huntington's disease, thyroid disease, hodgkins disease, lime disease, alzheimers disease, eye disease, genetic disease, lung disease, meniere's disease, autoimmune disease, fifths disease, infectious disease, gum disease"

(It was not easy to find this, but for those who are interested it is in the source for <http://www.bioharmonics.com/topframe.htm>, which is set for infinite looping, so I do not advise going directly to that site.)

Ms. Townsend replies:
10 Jan 2000

Dear Mr. Carroll,

Thank you for your observation [that 'bioenergy' is not clearly defined]. I will need to give a clear definition on my website. In brief, "bio" means means "of living things" and "energy" has many meanings "inherent power", "power in action", "expression of force", etc. Basically my term "bioenergy" is energy

that is inherent to living things. The term is accurate, even if it has been also used as scientific term to describe something completely different.

reply: Your definition may be accurate, but it still is not clear. What do you mean by 'inherent'? What are the essential characteristics of this energy that distinguish it from other forms of energy? How is this energy detected and measured? How does 'bioenergy', in your sense, differ from [élan vital](#), [chi](#) or [prana](#)?

[You write]

You show you do not understand biochemistry by your writing, viz., "if bioenergy and biochemistry have a mutual influence on each other, correcting bioenergy irregularities may also effect balancing the biochemistry." Bioenergy (as understood by biochemists) can't influence biochemistry any more than nuclear power plants can influence nuclear physics.

Put a plant in total darkness, it cannot thrive by the nutrients in the soil alone. God forbid that a child try to grow in total darkness, but I imagine it would be the same result. Why? Every scientist recognizes that certain biochemical reactions only can occur with the energy called light -- and not all "light" is in our visual spectrum. Dogs hear sounds we cannot. I have met people who can also hear beyond the typical range for humans. Existence of something does become unreal just cause we cannot detect it, just deniable.

reply: I think you mean, in your last sentence, that the existence of something does not depend upon our ability to detect it. I agree. However, that is a philosophical issue. We are here discussing an empirical matter. The fact is that we *can* detect areas of the electromagnetic spectrum that are not detectable by the senses without help from sonar, radar, the spectrometer, etc. If this energy you posit exists outside the range of our most sophisticated equipment, how do you know it exists? You are making claims for a very powerful effect from this energy, yet the energy itself is undetectable. This sounds like faith, not science.

Bioenergy is expressed in frequencies and harmonics of magnetic, electricity and light energies working together just at the outer boundaries of our ranges for physical detection. If the body/bioenergy field lacks these energies, illness will result.

reply: How do you know these things? What evidence is there for either of these claims? If these harmonics are at the outer boundary of our range of physical detection (by which I assume you mean detection using sophisticated scientific equipment), then they are detectable. If so, why are you the only one who has detected them? I don't imagine you even

have access to the kind of equipment necessary to detect energy at the boundaries of detection.

Furthermore, what is the basis for your claim that there is a causal relationship between these boundary energies and illness? And if there is a causal relationship, you have no way of knowing which is the cause, which the effect. How do you know that it is not illness which causes disharmony (assuming for the moment that these boundary energies and their harmonics exist)?

You like musical analogies, so here is one for you. If I hit the G string on my guitar and send out sound with various harmonics, you will have no effect on my G string by altering the harmonics with another instrument.

Every chemical reaction has an "electromagnetic" basis and every atom has movement, at least that was what I understood from my basic chemistry. Sunlight contains light in spectrums beyond technology's detection less than a century ago but technology is always behind human imagination. Someone had to see something that made him search beyond what he accepted to be absolute. That is "the stuff" that makes discoveries.

reply: It is also the stuff of quackery and nonsense. You seem to think that you have carte blanche to furnish the universe with whatever entities you wish on the ground that scientific knowledge has increased over time.

[You write]

Your claims about layers of bioenergy and the connection with chi have no empirical basis.

That is true at this time but as technology advances, I am positive that someday soon devices will be produced that will give the empirical evidence you are seeking.

reply: On what do you ground this hope? And, until then, shouldn't you be a bit more cautious of making grandiose claims regarding the health benefits of your Harmonizer? By the way, how could you invent the Harmonizer if you don't have the technology to detect these energies? If you can create them or affect them, you must be able to detect them. You should be writing a scientific paper and getting ready to receive your Nobel Prize.

[You write]

Are your case studies going to be reports of people who say they used the machine and boy do they feel better now?

Not exactly. For instance, one Florida man has interstitial fibrosis of the lungs. This is caused by breathing in mineral dusts even though he wore a mask, when he worked in a steel mill in Pennsylvania. One year before we met, he was told he had three years left and was put on the lung transplant list. After doing some research on his own he found that a lung transplant would not improve his quality of life and most likely only give him additional 3 to 5 years of suffering. He approached me when the specialists told him in August that he would not have two more years but barely 6 months because the disease was progressing much faster than anticipated. He began the self administered harmonization process in September. In November, his doctor can not hear any cracking in his lungs and asked him to come back for tests in January. In January, his doctor told him he would no longer qualify for a lung transplant. All this occurred in 1996-97 and he is still alive today. This disease rarely goes into remission, let alone improves. He is off medication most of the time except for occasional illnesses that seems to target his weaken lungs. Although he still harmonizes daily, at times he still has bouts of coughing and difficulty breathing but overall he is still improving. This was not the only case with documentation (x-rays and medical reports) but one of the toughest cases I have observed so far. He tells me that how he is now still is better that he would have been with a lung transplant. Most of the people he interviewed who had transplants are dead or dying. (I featured the progress of his case on the old website for over two years along with some others and this case is also featured in the book I am writing.)

reply: Not exactly? If you don't call this a case study, what do you call it? This is a [testimonial](#), not a [scientific study](#).

[You write

It is true that alternative practitioners can help some people by the [placebo effect](#) and by providing attention, love and care.]

Placebo? I really doubt it but let's say for a moment that it is. (Isn't it too bad that the learned, scientifically based, medical profession could not give him the elements needed for the placebo effect -- hope, faith and love.) Placebo effects rarely, if ever, actually make the person well rather than just "feel good". It is doubtful that this was placebo especially when you consider the time factors of this one case but there are several others.

reply: According to the Methodist Health Care System [webpage](#) on respiratory disorders, there are over 180 kinds of interstitial lung diseases. It is possible your machine helped the man, but we'll never know because so many other factors could account for his condition.

I would not place too much emphasis on the erroneous predictions of medical divinities (MDs).

Actually, I am pretty skeptical of many of the metaphysical ideas that you have categorized with my research. The thing I find so fascinating is that you assumed it was the same as the others and did not really investigate BioHarmonics itself. I have been able to do something no healing energy philosophy has ever done to date. With a bioenergy test, I have been able to accurately (less than 5% error) determine blood types from bioenergy patterns with hundreds of people who knew I could not possibly know that information about themselves. This is something that can be empirically verified with a blood test. As a skeptic, don't you find that the least bit interesting?

reply: I not only find it interesting, I find it appalling. So you *can* detect bioenergy. Do you do this with a machine or is it intuitive, some gift that only you possess? What journal have you published your study in? I would like to read how you detect the patterns and what algorithm you use to correlate the patterns to blood type. This alone would win you the Nobel Prize. Think of the lives that might be saved by not having to do a blood test before a transfusion in emergency cases!

[You write

Finally, I am having difficulty in understanding why you keep baiting me. Why would you want to be interviewed by a hack who you know will rip you to shreds?]

I view this conversation as exchange between two people of unlike minds. I honestly respect the views of someone who is true to skepticism. At this point I could quote your definition of a skeptic but you already know what you have written. I believe to be skeptical is to doubt and question. Skepticism is not about prejudging but in seeking truth that can be proven. I merely ask the question why are you convinced before you seek all the evidence? Are you not a contradiction of your beliefs? And if you are convinced what you believe is the truth and do not need further proof, why did you respond?

**Wishing you wellness,
Linda Townsend**

reply: A good critical thinker must not only have a healthy skepticism, but also be able to recognize a likely fraud or deluded person when he or she comes upon one. It would be wasteful of time and intellectual energy to dig deeply into every crackpot idea that is put forth by people such as yourself.

I respond for three reasons. One, I'm open-minded enough to allow that maybe you have some evidence for your claims and that maybe I was wrong in my initial evaluation of what you present as your work.

Two, the public exposition of my reasons and reasoning in your case can serve as an example of what I am doing in many other cases that are similar. Hopefully, by reading my comments some readers will see more clearly the importance of doing controlled tests rather than collecting testimonials. They may recognize how easy it is to delude ourselves if we do not clarify our terms and set out precise methods of evaluating our claims.

Three, in case you are a fraud, rather than a sincere person who is deluded or mistaken, I hope that by exposing you and others like you some people with serious illnesses will not seek your services. Your kind of medicine gives false hope to desperate people. Your attempt to lure in cancer patients with a meta tag and keywords in your html code is especially disgusting.

Ms. Townsend replies to my replies again (to avoid confusion I will reply to these replies to my replies at the end of her letter rather than respond to each reply to the reply). My earlier replies and questions are in bold, Ms. Townsend's responses are italicized:

10 Jan 2000

Dear Mr. Carroll,

**Your definition may be accurate, but it still is not clear.
What do you mean by 'inherent'?**

I believe the definition of inherent is "existing in someone or something as a natural inseparable quality".

What are the essential characteristics of this energy that distinguish it from other forms of energy?

The only essential characteristic is that is of living systems. Even plants have it although in a different formation than animals.

How is this energy detected and measured?

You cannot measure the power of a magnet with a piece of wood but you can with a piece of iron. The iron, unlike wood, has the potential of becoming magnetic. You cannot measure bioenergy without a sensitive source of bioenergy.

How does 'bioenergy', in your sense, differ from elan vital, chi or prana?

They don't reveal patterns relating to physical variation of one's blood type.

If this energy you posit exists outside the range of our most sophisticated equipment, how do you know it exists? You are making claims for a very powerful effect from this energy, yet the energy itself is undetectable. This sounds like faith, not science.

Perhaps. Science is also a belief system with several sects. What one scientist believes is a logical conclusion of the evidence can often be doubted and even concluded as wrong by another. Interpretations of evidence is still ruled by imperfect humans. In effect, yes, I believe all things of science have an element of faith.

How do you know these things? What evidence is there for either of these claims? If these harmonics are at the outer boundary of our range of physical detection (by which I assume you mean detection using sophisticated scientific equipment), then they are detectable. If so, why are you the only one who has detected them? I don't imagine you even have access to the kind of equipment necessary to detect energy at the boundaries of detection.

About 250 B.C. Greek scientists determined the Earth was round. Yet, the discoverers did not act on that belief. It does not amaze me that it was over 1700 years later before a "civilized" explorer acted on that information. What amazes me is how one can claim to prove with theory alone that something exists and then sit back discussing it without venturing on. Acting on a belief is what makes it believable.

The answers I would give you may be no more proof to you that bioenergy exists than the sophisticated mathematical equations was [sic] proof to common people that the world was spherical. I have no mathematical equations except for simple harmonics, no quantum science theories and no empirical evidence that would satisfy you and still I say it does exist because I can detect it. If it does not exist, how can I detect it and determine a person's blood type by it?

Furthermore, what is the basis for your claim that there is a causal relationship between these boundary energies and illness? And if there is a causal relationship, you have no way of knowing which is the cause, which the effect. How do you know that it is not illness which causes disharmony (assuming for the moment that these boundary energies and their harmonics exist)?

It can be either or both. Often the bioenergy reveals an anomaly prior to

physical symptoms of temporary conditions such as colds, flues and infections but whether the bioenergy anomaly causes or allows the cause of the illness is something I cannot say with absolute certainty at this time. I only say that the bioenergy anomaly is found in relationship to the effected areas.

You like musical analogies, so here is one for you. If I hit the G string on my guitar and send out sound with various harmonics, you will have no effect on my G string by altering the harmonics with another instrument.

I am not sure what you meant here, but I believe you are saying that I cannot make the G string change. If I had a guitar with an out of tune G string and we played together, it would eventually effect [sic] your G string. I used to play guitar with others and have noticed this happens. If you are saying I could not do this with harmonics alone, I would have to say that it would be an interesting experiment.

It is also the stuff of quackery and nonsense. You seem to think that you have carte blanche to furnish the universe with whatever entities you wish on the ground that scientific knowledge has increased over time.

I apologize for misleading you about how I think.

On what do you ground this hope? And, until then, shouldn't you be a bit more cautious of making grandiose claims regarding the health benefits of your Harmonizer? By the way, how could you invent the Harmonizer if you don't have the technology to detect these energies? If you can create them or affect them, you must be able to detect them. You should be writing a scientific paper and getting ready to receive your Nobel Prize.

I have not made any claims other than the Harmonizer can be used [to] energize bioenergy and correct bioenergy imbalances. The rest has been extracted from personal experience and reports of others. You know, a doctor gave me this same Nobel Prize speech once. It was done publicly and, unknown to him, in front of researchers, doctors, and scientists who had just witnessed me determining blood types by bioenergy testing. I was terribly embarrassed for him.

Not exactly? If you don't call this a case study, what do you call it. This is a testimonial, not a scientific study.

The "not exactly" was answering your question: "Are your case studies going to be reports of people who say they used the machine and boy do they feel better now?"

What I gave you is a synopsis from dated notes, reports, etc. as well as his testimony. His case reports are several pages long.

According to the Methodist Health Care System webpage on respiratory disorders, there are over 180 kinds of interstitial lung diseases. It is possible your machine helped the man, but we'll never know because so many other factors could account for his condition.

I thought I had given you the cause, breathing metallic dust while working in a steel mill, and if you looked it up you know that there is no medical cure. The disease progresses even when removed from the environment that caused it. His diagnosis was chronic interstitial fibrosis. His prognosis was terminal in 1995 with 3 years, possibly 5 years, of life without a lung transplant until August of 1996. At that time his prognosis was change to 6 months of life.

I would not place too much emphasis on the erroneous predictions of medical divinities (MDs).

Oh. Well, I agree. I used to work at a place that did x-ray readings. You see some things and learn some things here and there. One thing I have noticed is that when about half of the lungs look white on an x-ray one month and the next month more than half with greater density, that person is has a fast paced disease that is most liked going to inhibit his breathing to the point the lungs cannot exhale.

I not only find it interesting, I find it appalling. So you can detect bioenergy. Do you do this with a machine or is it intuitive, some gift that only you possess?

I test the motions of bioenergy using a special device that is able to swing freely and has access living bioenergy source [sic?]. Even though this is a subjective device at this time that will not always be so. Subjective or not, I still can detect blood types with high accuracy.

Everything causes a reaction in the bioenergy field. I am in the process of logging the patterns of various stimuli. For instance, the Florida man had difficulty correcting his bioenergy patterns to healthy states. I tested the bioenergy motion reactions of various metals and found the "signature" of nickel in the lungs, liver, and in the joints. He also had arthritis. Nickel is known to have an affinity for the lungs and is a known cause of lung cancer. Detoxification methods were suggested. Afterward, the bioenergy did improve and the nickel signature cannot be found. He reports he has very little to no arthritis pain now. When we first met, he could barely walk most days.

What journal have you published your study in? I would

like to read how you detect the patterns and what algorithm you use to correlate the patterns to blood type. This alone would win you the Nobel Prize. Think of the lives that might be saved by not having to do a blood test before a transfusion in emergency cases!

All things come in time.

Have you ever written a paper for a journal and had it accepted?

It is extremely difficult to get a journal to accept a paper without some peer recognition regardless of supportive findings. Still, I am continually looking for devices or someone with the technical expertise to make a device that would be considered absolutely objective, if there ever is such a thing.

I respond for three reasons. One, I'm open-minded enough to allow that maybe you have some evidence for your claims and that maybe I was wrong in my initial evaluation of what you present as your work.

I recognized that or I would not have responded.

Two, the public exposition of my reasons and reasoning in your case can serve as an example of what I am doing in many other cases that are similar. Hopefully, by reading my comments some readers will see more clearly the importance of doing controlled tests rather than collecting testimonials. They may recognize how easy it is to delude ourselves if we do not clarify our terms and set out precise methods of evaluating our claims.

I appreciate that as well.

Three, in case you are a fraud, rather than a sincere person who is deluded or mistaken, I hope that by exposing you and others like you some people with serious illnesses will not seek your services. Your kind of medicine gives false hope to desperate people. Your attempt to lure in cancer patients with a meta tag and keywords in your html code is especially disgusting.

I understand your concern. Perhaps it is inappropriate but then if someone does a search for cancer, I very much doubt he will find our site in the first 500 sites that come up on any major search engine.

Usually those with cancer who come to us are terminal with have no medical

options left. I do not give them false hope about their situation or miracle speeches although I have seen some miraculous things. I think you can tell that I am not trying to use hype and, even if I am deluded by your definition, I am sincere about my work and the research I have done.

I have really enjoyed our conversation and your questions have helped me. Perhaps when we get some case studies on-line you will be inspired to review the site again.

Wishing you wellness,

Linda Townsend

reply: I think you've answered all my questions as well as they can be answered. Your own words have exposed your intentions, methods, accomplishments and understanding of scientific procedures with exquisite clarity and appalling self-confidence.

10 Jan 2000

In her latest missive, Linda has actually made a testable claim, viz, that she can (with her magic box), type blood to a 95% accuracy by measuring the bioenergy field. You might wish to suggest that she apply for the million dollar Randi award. Or, ask for volunteers to run a controlled test, with her written pledge that if the test should prove negative, she will cease and desist from all promotion of her devices, books, and seminars. Of course, if she DOES succeed, we will do everything we can to promote her important work and get her that Nobel Prize that she apparently deserves.

Stuart Yaniger

10 Jan 2000

I have been reading the ongoing email discussion you have been having with the BioHarmonics quacks. I found the Meta tag to be very disturbing, so I took the time to email the agencies listed in the tag to alert them to the inappropriate referencing by BioHarmonics. I included a link to your letters page. I don't know if they have the time or resources to pursue things like this but I felt they should be given the opportunity. Large corporations have sued companies and website owners for doing the same thing and won.

It is an obscenity. Thanks for bringing it to the attention of the web community.

Kevin Miller

reply: It was Mike Hall (see his letter above) who brought it to my attention.

10 Jan 2000

I am following with interest the on-going discussion between you and Ms. Townsend regarding bioharmonics. Looking at a website's search keywords can probably shed some light on a company's motives; I think a company's accounting practices can, too. From the bioharmonics web page (<http://www.bioharmonics.com/cei/ie-index.htm> , under Harmonizer, then DISCOUNT PRICE!), I found this gem:

"Would you like to pay \$100 less for a Harmonizer and 10% off all other products.....

"To qualify you will need to pay in CASH. Postal Money Orders from the U.S. Post Office and U.S. Currency are the only types of payments that qualify. Wire transfers may be considered on an individual basis.

Money Orders, Cashier's Checks, personal checks or any other type of payment method through banks or other companies are exempt from this offer."

This appears to be an attempt to collect money without a paper trail. While this doesn't invalidate bioharmonics per se, it does affect my opinion of the company, and causes me to question the nature of their motives, and the veracity of their claims.

Russell Fox

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Blondlot and N-rays

One of the first things I did with every graduate student who worked with me is to convince them how difficult it was to keep oneself from unconscious bias.* --Michael

Wetherell, head of [Fermi National Accelerator Laboratory](#)

René Prosper Blondlot (1849-1930) was a French physicist who claimed to have discovered a new type of radiation, shortly after Roentgen had discovered X-rays. He called it the N-ray, after Nancy, the name of the town and the university where he lived and worked. Blondlot was trying to polarize X-rays when he claimed to have discovered his new form of radiation. Dozens of other scientists confirmed the existence of N-rays in their own laboratories. However, N-rays don't exist. How could so many scientists be wrong? They deceived themselves into thinking they were seeing something when in fact they were not. They [saw what they wanted to see](#) with their instruments, not what was actually there (or, in this case, what was *not* there).

The story of Blondlot is a story of [self-deception](#) among scientists. Because many people have the misguided notion that science should be infallible and a fount of absolutely certain truths, they look at the Blondlot episode as a vindication of their excessive skepticism towards science. They relish accounts such as the one regarding Blondlot and the phantom N-rays because it is a story of a famous scientist making a great error. However, if one properly understands science and scientists, the Blondlot episode indicates little more than the fallibility of scientists and the self-correcting nature of [science](#).

Blondlot claimed that N-rays exhibit impossible properties and yet are emitted by all substances except green wood and certain treated metals. In 1903, Blondlot claimed he had generated N-rays using a hot wire inside an iron tube. The rays were detected by a calcium sulfide thread that glowed slightly in the dark when the rays were refracted through a 60-degree angle prism of aluminum. According to Blondlot, a narrow stream of N-rays was refracted through the prism and produced a spectrum on a field. The N-rays were reported to be invisible, except when viewed as they hit the treated thread. Blondlot moved the thread across the gap where the N-rays were thought to come through and when the thread was illuminated it was said to be due to N-rays.

Nature magazine was skeptical of Blondlot's claims because laboratories in England and Germany had not been able to replicate the Frenchman's results. *Nature* sent American physicist Robert W. Wood of Johns Hopkins University to investigate Blondlot's discovery. Wood suspected that N-rays

were a delusion. To demonstrate such, he removed the prism from the N-ray detection device, unbeknownst to Blondlot or his assistant. Without the prism, the machine couldn't work. Yet, when Blondlot's assistant conducted the next experiment he found N-rays. Wood then tried to surreptitiously replace the prism but the assistant saw him and thought he was removing the prism. The next time he tried the experiment, the assistant swore he could not see any N-rays. But he should have, since the equipment was in full working order.

According to Martin Gardner, Wood's exposure of Blondlot led to the French scientist's madness and death (Gardner, 345 n.1). But were those who verified Blondlot's N-ray experiments stupid or incompetent? Not necessarily, since the issue isn't one of intelligence or competence, but of the psychology of perception. Blondlot and his followers suffered "from self-induced visual hallucinations" (*ibid.*).

What is the lesson from the Blondlot episode? James Randi writes

...science does not always learn from these mistakes. Visiting Nancy recently and speaking on the subject of [pseudoscience](#), I discussed this example and though I was in the city that gave the name to N-rays, no one in the audience had ever heard of them, or of Blondlot, not even the professors from the University of Nancy!
--[James Randi at Cal Tech](#)

The fact that Blondlot is not remembered at Nancy ought to be taken as a sign that science *does* learn from its mistakes. The fact that Blondlot is not considered a prophet in his homeland is a healthy sign that although scientists often make errors, even big ones, other scientists will uncover the errors and get science back on the right path to understanding nature. Those who think that science should be infallible do not understand the nature of science.

Recent examples of "Blondlot's Folly" are Pons and Fleischmann's discovery of [cold fusion](#) (1989) and the Lawrence Berkeley National Laboratory in California's claim to have discovered [ununoctium or element 118](#) (1999), although the latter seems to be marred by [faked data](#).

See **related entries** on [Charles Fort and the Forteans](#), [confirmation bias](#), [pathological science](#), [Piltdown Man](#) and [pseudoscience](#).

further reading

[reader comments](#)

- [James Randi at Cal Tech](#)
- [The Rise and Fall of N-Rays](#) by Mike Epstein

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mesmerism

Mesmerism is a bit of medical quackery developed in the 18th-century by Dr. Franz Anton Mesmer. It involves some social role-playing with the mesmerizer making suggestions and his clients becoming absolutely mesmerized by him. Mesmer used his extraordinary powers of suggestion to send people into frenzied convulsions or sleeplike trances. He was so successful that to this day we use his name to describe the exercise of such powers over others.



In the early 1770s, Mesmer, a Viennese physician who got his doctorate for a plagiarized dissertation on how the planets affect health, met Maximillian Hell, a Viennese Jesuit and healer. The rest, as they say, is history. Fr. Hell cured people with a magnetic steel plate. Hell's "proof" of magnetic healing was that it worked, i.e., he had a lot of satisfied customers. Mesmer plagiarized Hell's magnetic therapy and posited that it works because there is a very subtle magnetic fluid flowing through everything but which sometimes gets disturbed and needs to be restored to its proper flow. Hell, Mesmer theorized, was unblocking the flow of this magnetic fluid with his magnets. Mesmer eventually discovered that he got the same results without the magnets. Rather than attribute this to the [placebo effect](#), he posited that "animal magnetism" accounted for his ability to correct the flow of the universal magnetic fluid. (Today, the term "animal magnetism" means mesmerism or hypnotic power, but I have heard it misused more than once by females to mean a sexy male and by members of both sexes to mean someone to whom animals are attracted.)

Mesmer also discovered that even though he didn't need magnets to get results, the dramatic effect of waving a magnetized pole over a person, or having his subjects sit in magnetized water or hold magnetized poles, etc., while he moved around in brightly colored robes playing the scientific faith healer, made for better drama and for larger audiences. He was able to evoke from a number of his clients entertaining behaviors ranging from sleeping to dancing to having convulsions. Mesmer did basically what today's [hypnotists](#) do in the showroom and the clinic, and what faith healers do in the circus tents and churches, only he did them together, making a great show out of his magnetic cures. With Louis XVI's and Marie Antoinette's help, Mesmer set up a Magnetic Institute where he had his patients do such things as sit with their feet in a fountain of magnetized water while holding cables attached to

magnetized trees. He was later denounced as a fraud by the French medical establishment and by a commission which included Benjamin Franklin.

Did Fr. Hell and Dr. Mesmer really cure anyone? No, of course not. Did any of their patients feel better after taking the cure, or did they declare that they had been healed? Yes, of course. Faith healers and quacks always have "successes." In some cases, they create the illnesses themselves through their power of suggestion and the receptiveness of their subjects. These iatrogenic diseases may or may not have painful physical manifestations. These "diseases" can be as serious as demonic possession or as trivial as excessive giggling. They can present dramatic manifestations such as convulsions or soporific manifestations such as a sleeplike stupor. According to Nicholas Spanos, such patients are not really sick until they agree to play the role of the sick patient for the heroic doctor/savior. Spanos also argues that so-called dissociation or [multiple personality disorder](#) is an iatrogenic disease and got established as a treatable illness in much the same way that [exorcism](#) for demonic possession, [psychoanalysis](#) for hysteria, and fads such as mesmerism got established. Spanos maintains that there is no such thing as multiple personalities, that the idea is a social creation accepted by certain patients who learn to play the roles expected of them as a person with multiple personality disorder (MPD). (Robert Baker makes the same argument for [hypnosis](#).)

When characters such as Mesmer "cure" people, it is his subjects who "cure" themselves. They provide the rapport with their master, and they respond to his suggestions because they agree to respond to them. In short, all such "healing" is done by faith. Sometimes the cure or behavior change might be accomplished by less troubling and less expensive alternative means.

The spirits of Fr. Hell and Dr. Mesmer might be happy to know that magnetic stimulation of the brain's left prefrontal cortex is being tested as a possible aid for depressed patients. Most depression can now be controlled with pharmaceutical treatment, but very severe cases seem to respond only to electroconvulsive therapy (ECT), the kind featured in *One Flew Over the Cuckoo's Nest* and lampooned by almost anyone in the media or public eye who brings up the topic. Researchers at the National Institute of Mental Health (NIMH) are hoping that repetitive [transcranial magnetic stimulation \(TMS\)](#) will work like ECT but without the side effects (seizures and memory loss, in some patients). This research is not based on a belief in animal magnetism or universal magnetic fluids, but upon the facts that (1) ECT works even though nobody knows how; (2) the left prefrontal cortex has been implicated as a site of abnormally low metabolism in depressed brains; (3) after ECT and TMS there are widespread increases in brain metabolism; (4) after ECT many patients experience a dramatic improvement in mood; and (5) preliminary studies have found some mood improvement in some patients who have been treated with TMS. However, do not look for another Mesmer to arise from the medical establishment and take this show on the road.

Scientists are investigating TMS, not faith healers. They may end up concluding the treatment is worthless or harmful.

See **related entries** on [exorcism](#), [hypnosis](#), and [multiple personality disorder](#).

further reading

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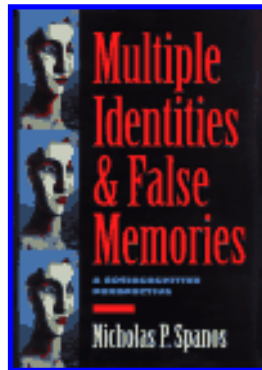
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Multiple Identities & False Memories: A Sociocognitive Perspective

by Nicholas P. Spanos

American Psychological Association, 1996

The mind is a strange thing. Stranger still are some of the ideas psychologists and philosophers have devised to explain the mind. Strangest of all, perhaps, is the fact that some of these ideas become dogma and are taught to unsuspecting undergraduates in textbooks, to trusting graduate students by their mentors in their labs and discussion groups, and to the general public by the mass media. Words find their way into our dictionaries and encyclopedias which give the impression that these strange ideas are not strange at all, but known to be true by the experts who have studied them. I am thinking of expressions such as 'unconscious mind', 'hypnosis', 'repression', 'subliminal advertising', 'libido', 'dissociation', 'codependency' (and numerous other 'addictions'), 'collective unconscious', 'penis envy', and all the *syndromes* and *disorders* that have multiplied over the years in psychiatric diagnostic manuals. Explanatory concepts in psychology are reified and become entities at a rate of development which would fill with envy any third world country desiring the riches of industrialized nations. Mind is a growth industry.

There have been a few notable critics of the expansive nature of psychological theorizing. Robyn Dawes, Robert Baker, Carol Tavris, Elizabeth Loftus and Margaret Singer come to mind. One voice stands out, however: that of Nicholas P. Spanos, silenced by a plane crash in 1994, but whose words remain with us in his many articles and in this remarkable book submitted for publication just prior to his death. Here Spanos presents his case against the "standard textbook" concepts of hypnosis, memory and multiple identities, as well as casting doubt on the validity of the cottage industry of therapies which use hypnosis and other procedures to ferret out false memories and false entities. In what can only be fairly described as a brilliant marshaling forth of evidence, Spanos makes his argument that *hypnosis*, *repressed memories of childhood abuse* and *multiple personality disorder* are "rule-governed social constructions established, legitimated, and maintained through social interaction" (from the preface by John Chaves and Bill Jones).

In short, Spanos argues that some of the most fundamental concepts and treatable disorders in psychology, as well as some fundamental techniques for the treatment of those disorders, have been created by psychologists with the

cooperation of their patients and the rest of society. Thus, many psychologists and therapists are little more than modern day witchhunters, creating their "witches" by questionable assumptions and procedures, misleading the rest of us into believing in "demonic possession" (i.e., repression of memories of childhood abuse and dissociation) and that only the experts know the correct procedures for ridding the world of these evils. The experts create both the disease and the cure, not unlike the creation of Listerine for 'halitosis,' except for the much more devastating consequences of creating "treatable mental disorders."

A rather common view of multiple personality disorder (MPD) is given by Daniel Dennett, who seems to accept the standard view as accurate.

...the evidence is now voluminous that there are not a handful or a hundred but thousands of cases of MPD diagnosed today, and it almost invariably owes its existence to prolonged early childhood abuse, usually sexual, and of sickening severity. Nicholas Humphrey and I investigated MPD several years ago ["Speaking for Our Selves: An Assessment of Multiple Personality Disorder," *Raritan*, 9, pp. 68-98] and found it to be a complex phenomenon that extends far beyond individual brains and the sufferers.

These children have often been kept in such extraordinary terrifying and confusing circumstances that I am more amazed that they survive psychologically at all than I am that they manage to preserve themselves by a desperate redrawing of their boundaries. What they do, when confronted with overwhelming conflict and pain, is this: They "leave." They create a boundary so that the horror doesn't happen to *them*; it either happens to no one, or to some other self, better able to sustain its organization under such an onslaught--at least that's what they *say* they did, as best they recall.

[*Consciousness Explained* (Little, Brown, and Co., 1991), ch. 13, "The Reality of Selves"]

Dennett exhibits minimal skepticism about the truth of the MPD accounts, and focuses on how they can be explained metaphysically and biologically. For all his brilliant exploration of the concept of the self, the one perspective he doesn't seem to give much weight to is the one Spanos takes: that the self and the multiple selves of the MPD patient are social constructs, not needing a metaphysical or biological explanation so much as a social-psychological one. That is not to say that our biology is not a significant determining factor in the development of our ideas about selves, including our own self. It is to say, however, that before we go off worrying about how to metaphysically explain one or a hundred selves in one body, or one self in a hundred bodies, we might want to consider that a phenomenological analysis of behavior which

takes that behavior at face value or which attributes it to nothing but brain structure and biochemistry, may be missing the most significant element in the creation of the self: the sociocognitive context in which our ideas of self, disease, personality, memory, etc., emerge.

But if thinkers of Dennett's stature accept MPD as something which needs explaining rather than explaining away, the task of convincing the psychological community to Spanos' way of thinking is Herculean. How could it be possible that MPD patients have been created in the therapist's laboratory, so to speak? How could it be possible that so many people, particularly female people, could have so many false memories of childhood sexual abuse? How could it be possible that so many people could have been fooled into thinking they were in an altered state of consciousness when they agreed to be hypnotized? How could so many people behave *as if* their bodies have been invaded by numerous entities or personalities, if they hadn't really been so invaded? How could the *defense mechanism* explanations in terms of *repression* for childhood sexual trauma and *dissociation* for MPD not be correct? How could so many people be so wrong about so much? Spanos' answer makes it sound almost too easy for such a massive amount of self-deception and delusion to develop: it's happened before and we all know about it. Remember demonic possession?

Most educated people today do not try to explain epilepsy, brain damage, genetic disorders, neurochemical imbalances, feverish hallucinations or troublesome behavior by appealing to the idea of demonic possession. Yet, at one time, all of Europe and America would have accepted such an explanation. Furthermore, we had our experts--the priests and theologians--to tell us how to identify the possessed and how to exorcise or execute the demons. An elaborate theological framework bolstered this worldview and an elaborate set of social rituals and behaviors validated it on a continuous basis. In fact, every culture, no matter how primitive and pre-scientific, had a belief in some form of demonic possession, its shamans and witch doctors who performed the rituals to rid the possessed of their demons, and its own sociocognitive context in which such beliefs and behaviors were seen as obviously correct and were constantly reinforced by traditional and accepted social behaviors and expectations.

We know now that the behaviors of witches and other possessed persons--as well as the behaviors of their tormentors, exorcists and executioners--were enactments of social roles. We do not believe that in those days there really were witches, or that demons really did invade bodies, or that priests really did exorcise those demons by their ritualistic magic. Yet, for those who lived in the time of witches and demons, these beings were as real as anything else they experienced. In Spanos' view, what is true of the world of demons and exorcists is true of the psychological world filled with phenomena such as hypnosis, repression of childhood sexual trauma and its manifestation in such disorders as bulimia and other emotional problems, dissociation of the self as one of several defense mechanisms to avoid having to face the horrors of the

past, and the unconscious mind as a cellar of horrors which seep through to disturb conscious thought and behavior the way demons used to creep into the world to haunt us.

Spanos makes a very strong case for the claim that "patients learn to construe themselves as possessing multiple selves, learn to present themselves in terms of this construal, and learn to reorganize and elaborate on their personal biography so as to make it congruent with their understanding of what it means to be a multiple." Psychotherapists, according to Spanos, "play a particularly important part in the generation and maintenance of MPD." It would be unfair to present his case in a review, but anyone should find it significant that most therapists never see a single case of MPD and that some therapists report seeing hundreds of cases each year. It should be distressing to those trying to defend the integrity of psychotherapy that a patient's diagnosis depends upon the preconceptions of the therapist. Typically, an MPD patient has no memory of sexual abuse upon entering therapy, but once the therapist begins encouraging the patient, memories of extremely bizarre sexual abuses emerge, often involving satanic rituals. But [the scientific evidence on memory](#) is inconsistent with the claim of amnesia for all these reported sexual horrors.

Multiple selves exist and have existed in other cultures without being related to the notion of a mental disorder as it is in North American culture today. "Multiple identities can develop in a wide variety of cultural contexts and serve numerous different social functions." Neither childhood sexual abuse nor mental disorder is a necessary condition for multiple personality to manifest itself. Multiple personalities are best understood as "rule-governed social constructions." They "are established, legitimated, maintained, and altered through social interaction." In a number of different historical and social contexts, people have learned to think of themselves as "possessing more than one identity or self, and can learn to behave as if they are first one identity and then a different identity." However, "people are unlikely to think of themselves in this way or to behave in this way unless their culture has provided models from whom the rules and characteristics of multiple identity enactments can be learned. Along with providing rules and models, the culture, through its socializing agents, must also provide legitimation for multiple self enactments."

Spanos presents brilliant and analogous scenarios for the development of [mesmerism](#) and [hypnosis](#), [repressed memory therapy](#), [UFO abduction therapy](#), [past-life regression therapy](#), [spirit and demonic possession and exorcism](#), [glossolalia](#) and multiple personality disorder. And some of his work is suggestive of research one wishes he had lived to fulfill. For example, he wonders aloud about the sociopolitical implications of the fact that it is mostly women who have false memories, yet studies demonstrate that women are no more prone to false memories than men. He notes, too, that the witch hunt for child abusers has focused almost exclusively on day care centers,

while it is highly unlikely that such a widespread phenomenon would be restricted to just those places that working mothers might take their children. Before the day-care operators became the focus of attention, most of the abuse stories were of recovered "memories" made in therapy by relatively well-to-do woman against their middle-class parents. Where would he have taken these ideas? One wonders. Look what he does with the false statistics created by the abuse survivor movement:

...support for the notion that childhood sexual abuse is widespread and virulent can be used to support various social and political agendas. Strong advocacy of these ideas is voiced not only by certain aspects of the feminist movement, but also by some sections of the religious right with its support for false reports of satanic ritual abuse made both by adult survivors and by children trapped in day-care sexual abuse panics. In the case of the religious right, perpetuation of the idea that child sexual abuse is prevalent is used to support rather than challenge a conservative and antifeminist political agenda.

Relatedly, the propositions that one third to one half of women have experienced severe sexual abuse during childhood, that such abuse invariably produces serious psychological symptoms, and that half of these abused women suffer psychological sequelae without even being aware that they were abused could be said to undermine a view of women as mature and responsible adults who are as capable as men of economic self-sufficiency, professional attainment, and political acumen. On the contrary, the picture painted by these statistics serves to justify rather than challenge the political and economic inequality of women. After all, from this perspective, the problems of women stem not from economic and politically based discrimination that, with organized effort, can be changed. Instead, these problems are attributed to the "fact" that an astounding one third to one half of the female population has been psychologically and emotionally crippled by childhood events that cannot be altered.

Multiple Identities and False Memories is a book every psychology major and every therapist should read, though it would probably not alter the thinking about alters of those whose livelihood depends upon providing therapy to abuse victims. It would probably be too much to expect the general public or the mass media to take to the book. It lacks the simplicity, entertainment qualia and bizarreness of a *Sybil*, *The Three Faces of Eve*, *The Five of Me* or *The Minds of Billy Milligan*. The role of such books in influencing not only the general public's beliefs about MPD, but in affecting MPD patients, is documented by Spanos, including the surge of MPD cases following the

showing on television of *Sybil*. However, the numerous social scientists who provide the data and the arguments that MPD is iatrogenic or a social construct will probably not be invited to speak on Oprah. The mass media caters to the public's desire for lurid entertainment. What could be more lurid and entertaining than a nation of women abused as children, subjected to satanic rituals, and driven mad by their abusers? Whether they are reporting the truth, doesn't matter. Their reports are accurate. For those who love the truth, Nicholas Spanos will delight more than any lurid tabloid, Hollywood production or talk-back show.

About the author: Nicholas Spanos received his Ph.D. from Boston University. From 1975 to 1994 he was Director of the Laboratory for Experimental Hypnosis at Carleton University, Ottawa, Ontario, Canada, where he was a Professor of Psychology. Prior to his appointment at Carleton, Dr. Spanos was a senior research associate at Medfield State Hospital in Medfield, Massachusetts. He was killed in 1994 when the plane he was piloting crashed shortly after takeoff. He authored some 250 articles and book chapters, and was co-author of two important book on hypnosis.

further reading

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transubstantiation

Transubstantiation is the alleged process whereby the bread and wine offered up at the communion service has its substance changed to that of the body, blood, soul and divinity of Jesus Christ while its accidents appear to be that of bread and wine. What looks like, tastes like, etc., bread and wine is actually another substance altogether. How this happens is a mystery and defies logic. How it *can* happen would require a [miracle](#).

Transubstantiation is also known as the doctrine of *the real presence*.

further reading

- [The Real Presence of Christ in the Eucharist](#) - The Catholic Encyclopedia





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7/9/2002](#)

science*

Science is first and foremost a set of logical and empirical methods which provide for the systematic observation of empirical phenomena in order to understand them. We think we understand empirical phenomena when we have a satisfactory theory which explains how the phenomena work, what regular patterns they follow, or why they appear to us as they do. Scientific explanations are in terms of [natural phenomena](#) rather than supernatural phenomena, although science itself requires neither the acceptance nor the rejection of the supernatural.

Science is also the organized body of knowledge about the empirical world which issues from the application of the abovementioned set of logical and empirical methods.

Science consists of several specific sciences, such as biology, physics, chemistry, geology, and astronomy, which are defined by the type and range of empirical phenomena they investigate.

Finally, science is also the application of scientific knowledge, as in the altering of rice with daffodil and bacteria genes to boost the vitamin A content of rice.

the logical and empirical methods of science

There is no single scientific method. Some of the methods of science involve logic, e.g., drawing inferences or deductions from hypotheses, or thinking out the logical implications of causal relationships in terms of necessary or sufficient conditions. Some of the methods are empirical, such as making observations, designing [controlled experiments](#), or designing instruments to use in collecting data.

Scientific methods are impersonal. Thus, whatever one scientist is able to do *qua scientist*, any other scientist should be able to duplicate. When a person claims to measure or observe something by some purely subjective method, which others cannot duplicate, that person is not doing science. When scientists cannot duplicate the work of another scientist that is a clear sign that the scientist has erred either in design, methodology, observation, calculation, or calibration.

scientific facts and theories

Science does not assume it knows the truth about the empirical world *a priori*.

Science assumes it must discover its knowledge. Those who claim to know empirical truth *a priori* (such as so-called [scientific creationists](#)) cannot be talking about scientific knowledge. Science presupposes a regular order to nature and assumes there are underlying principles according to which natural phenomena work. It assumes that these principles or laws are relatively constant. But it does not assume that it can know *a priori* either what these principles are or what the actual order of any set of empirical phenomena is.

A scientific theory is a unified set of principles, knowledge, and methods for explaining the behavior of some specified range of empirical phenomena. Scientific theories attempt to understand the world of observation and sense experience. They attempt to explain how the natural world works.

A scientific theory must have some logical consequences we can test against empirical facts by making predictions based on the theory. The exact nature of the relationship of a scientific theory making predictions and being tested is something about which philosophers widely disagree, however (Kourany 1997).

It is true that some scientific theories, when they are first developed and proposed, are often little more than guesses based on limited information. On the other hand, mature and well-developed scientific theories systematically organize knowledge and allow us to explain and predict wide ranges of empirical events. In either case, however, one characteristic must be present for the theory to be scientific. The distinguishing feature of scientific theories is that they are "capable of being tested by experience" (Popper, 40).

To be able to test a theory by experience means to be able to predict certain observable or measurable consequences from the theory. For example, from a theory about how physical bodies move in relation to one another, one predicts that a pendulum ought to follow a certain pattern of behavior. One then sets up a pendulum and tests the hypothesis that pendulums behave in the way predicted by the theory. If they do, then the theory is *confirmed*. If pendulums do not behave in the way predicted by the theory, then the theory is *falsified*. (This assumes that the predicted behavior for the pendulum was correctly deduced from your theory and that your experiment was conducted properly.)

The fact that a theory passed an empirical test does not prove the theory, however. The greater the number of severe tests a theory has passed, the greater its degree of confirmation and the more reasonable it is to accept it. However, to confirm is not the same as to prove logically or mathematically. No scientific theory can be proved with absolute certainty.

Furthermore, the more tests which can be made of the theory, the greater its empirical content (Popper, 112, 267). A theory from which very few empirical predictions can be made will be difficult to test and generally will

not be very useful. A useful theory is rich or *fecund*, i.e., many empirical predictions can be generated from it, each one serving as another test of the theory. Useful scientific theories lead to new lines of investigation and new models of understanding phenomena that heretofore have seemed unrelated (Kitcher). This feature of fecundity is probably the main difference between the theory of natural selection and the theory of special creation. The theory of special creation has not led to new discoveries, better understanding, or increased understanding of the relatedness of areas within the field of biology or between such fields as biology and psychology. As such, the theory of special creation is nearly useless. And, since the theory is put forth as dogma, it is the antithesis of a scientific theory.

However, even if a theory is very rich and even if it passes many severe tests, it is always possible that it will fail the next test or some other theory will be proposed that explains things even better. Logically speaking, a currently accepted scientific theory could even fail the same tests it has passed many times in the past. Karl Popper calls this characteristic of scientific theories, "falsifiability."

the fallibility of science

A necessary consequence of scientific claims being falsifiable is that they are also fallible. For example, Einstein's special theory of relativity is accepted as "correct" in the sense that "its necessary inclusion in calculations leads to excellent agreement with experiments" (Friedlander 1972, 41). This does not mean the theory is infallibly certain. Scientific facts, like scientific theories, are not infallible certainties. Facts involve not only easily testable perceptual elements; they also involve interpretation.

Noted paleoanthropologist and science writer Stephen Jay Gould reminds us that in science 'fact' can only mean "confirmed to such a degree that it would be perverse to withhold provisional assent" (Gould 1983, 254). However, facts and theories are different things, notes Gould, "not rungs in a hierarchy of increasing certainty. Facts are the world's data. Theories are structures of ideas that explain and interpret facts." In Popper's words: "Theories are nets cast to catch what we call 'the world': to rationalize, to explain, and to master it. We endeavor to make the mesh ever finer and finer."

To the uninformed public, facts contrast with theories. Non-scientists commonly use the term 'theory' to refer to a speculation or guess based on limited information or knowledge. However, when we refer to a scientific theory, we are not referring to a speculation or guess, but to a systematic explanation of some range of empirical phenomena. Nevertheless, scientific theories vary in degree of certainty from the highly improbable to the highly probable. That is, there are varying degrees of evidence and support for different theories, i.e., some are more reasonable to accept than others.

There are, of course, many more facts than theories, and once something has been established as a scientific fact (e.g., that the earth goes around the sun) it is not likely to be replaced by a "better" fact in the future. Whereas, the history of science clearly shows that scientific theories do not remain forever unchanged. The history of science is, among other things, the history of theorizing, testing, arguing, refining, rejecting, replacing, more theorizing, more testing, etc. It is the history of theories working well for a while, [anomalies](#) occurring (i.e., new facts being discovered which do not fit with established theories) and new theories being proposed and eventually replacing the old ones partially or completely (Kuhn). It is the history of rare geniuses--such as a Newton, a Darwin or an Einstein--finding new and better ways of explaining natural phenomena.

We should remember that science, as Jacob Bronowski put it, "is a very human form of knowledge....Every judgment in science stands on the edge of error.... Science is a tribute to what we can know although we are fallible" (Bronowski, 374). "One aim of the physical sciences," he said, "has been to give an exact picture of the material world. One achievement of physics in the twentieth century has been to prove that aim is unattainable" (353).

scientific knowledge

Scientific knowledge is human knowledge and scientists are human beings. They are not gods, and science is not infallible. Yet, the general public often thinks of scientific claims as absolutely certain truths. They think that if something is not certain, it is not scientific and if it is not scientific, then any other non-scientific view is its equal. This misconception seems to be, at least in part, behind the general lack of understanding about the nature of scientific theories.

Another common misconception is that since scientific theories are based on human perception, they are necessarily relative and therefore do not really tell us anything about the real world. Science, according to certain "postmodernists" cannot claim to give us a true picture of what the empirical world is really like; it can only tell us how it appears to scientists. There is no such thing as scientific truth. All scientific theories are mere fictions. However, just because there is no one, true, final, godlike way to view reality, does not mean that every viewpoint is as good as every other. Just because science can only give us a human perspective, does not mean that there is no such thing as scientific truth. When the first atomic bomb went off as some scientists had predicted it would, another bit of truth about the empirical world was revealed. Bit by bit we are discovering what is true and what is false by empirically testing scientific theories. To claim that those theories which make it possible to explore space are "just relative" and "represent just one perspective" of reality, is to profoundly misunderstand the nature of science and scientific knowledge.

science as a candle in the dark

Science is, as Carl Sagan put it, a candle in the dark. It shines a light on the world around us and allows us to see beyond our superstitions and fears, beyond our ignorance and delusions, and beyond the magical thinking of our ancestors, who rightfully fought for their survival by fearing and trying to master occult and supernatural powers.

Jacob Bronowski put it all in perspective in one scene from his televised version of the *Ascent of Man*. I'm referring to the episode on "Knowledge and Certainty" where he went to Auschwitz, walked into a pond where the ashes were dumped, bent down and scooped up a handful of muck.

It is said that science will dehumanize people and turn them into numbers. That is false, tragically false. Look for yourself. This is the concentration camp and crematorium at Auschwitz. This is where people were turned into numbers. Into this pond were flushed the ashes of some four million people. And that was not done by gas. It was done by ignorance. When people believe that they have absolute knowledge, with no test in reality, this is how they behave. This is what men do when they aspire to the knowledge of gods (374).

The trick is to know how to develop tests in reality that avoid [confirmation bias](#), [wishful thinking](#), [self-deception](#), [selective thinking](#), [subjective validation](#), being seduced by [communal reinforcement](#) or persuaded by [ad hoc hypotheses](#) and [post hoc reasoning](#), as well as having a healthy [skepticism](#) and an ability to apply [Occam's razor](#) when needed.

See **related entries** on [alternative science](#), [naturalism](#), [pseudoscience](#), and those listed in the [Logic/Perception & Science/Philosophy Topical Index](#) and those listed in [Junk Science and Pseudoscience](#).

***This material is adapted from my [Becoming a Critical Thinker](#), ch. 9, "Science and Pseudoscience." I am aware that 'science' can also refer to any systematic body of knowledge about some object of study and that mathematics and even theology are sometimes referred to as sciences. This entry is obviously not an attempt to define every possible use of the term 'science.' In some quarters, the science I am concerned with here is called *natural science*. I do not intend to issue any debate as to what is and what is not a 'real' science by this entry, nor do I intend to get into any "borderline" issues as to whether some discipline or activity is or is not science.**

further reading

- [Who Wants to Be a Science-Savvy President?](#) by John Allen Paulos
- [Science and Religion](#) - The Freethought Zone
- [American Association for the Advancement of Science](#)
- [The Academy of Natural Sciences](#)
- [National Science Foundation](#)
- [American Physical Society](#)
- [American Chemical Society](#)
- [American Institute of Biological Sciences](#)

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[scientism](#)



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pathological science

"Pathological science" is a term coined by [Nobel-laureate](#) in chemistry [Irving Langmuir](#) in a presentation he made at General Electric's Knolls Atomic Power Laboratory a few years before his death in 1957. Langmuir described typical cases as involving such things as barely detectable causal agents observed near the threshold of sensation which are nevertheless asserted to have been detected with great accuracy. The supporters offer fantastic theories that are contrary to experience and meet criticisms with ad hoc excuses. And, most telling, only supporters can reproduce the results. Critics can't duplicate the experiments.

He gave several examples, including [ESP](#) experiments and [Blondlot's N-rays](#), and stated that

These are cases where there is no dishonesty involved but where people are tricked into false results by a lack of understanding about what human beings can do to themselves in the way of being led astray by subjective effects, wishful thinking or threshold interactions. These are examples of pathological science. These are things that attracted a great deal of attention. Usually hundreds of papers have been published on them. Sometimes they have lasted for 15 or 20 years and then gradually have died away.

Langmuir visited J.B. Rhine's lab at Duke University where Rhine was claiming results of ESP experiments that could not be predicted by chance and were probably due to some sort of psychic power. Langmuir found that Rhine was not counting all his data, however. He was leaving out the scores of those he believed were guessing their [Zener cards](#) wrong on purpose.

"Rhine believed that persons who disliked him guessed wrong to spite him. Therefore, he felt it would be misleading to include their scores" (Park 2000, 42). Rhine determined that some of his subjects were deliberately guessing wrong because their scores were too low to have occurred by chance. "Indeed, he was convinced that abnormally low scores were as significant as abnormally high scores in proving the existence of ESP" (ibid.).

A. Cromer, commenting on Langmuir's characteristics of pathological science, noted that scientists are often not very good judges of the scientific process. Even the best intentions can be subverted by [self-deception](#). Good science is not simply a matter of honesty or wisdom. Furthermore,

Real discoveries of phenomena contrary to all previous

scientific experience are very rare, while fraud, fakery, foolishness, and error resulting from overenthusiasm and delusion are all too common (Cromer 1993).

Do Langmuir's observations imply that scientists should shy away from controversial topics such as prions, [facilitated communication](#), cold fusion, [orgone energy](#), ESP, and zero-point energy? No. What follows is that *any* scientist doing *any* research must proceed with caution, tentativeness, a sense of the history of science and an awareness of the tendencies in human nature which can easily lead the wisest of men or women astray. What also seems to follow is that to show little or no interest in allowing oneself and others to try to prove one's fantastic theories to be wrong, while immediately meeting every objection with [ad hoc hypotheses](#), is a sign of pathological science if not [pseudoscience](#).

See **related entries** on [ad hoc hypotheses](#), [Blondlot and N-rays](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [the placebo effect](#), [the post hoc fallacy](#), [selective thinking](#), [science](#), [subjective validation](#), [testimonials](#) and [wishful thinking](#).

further reading

- [Toward a general theory of pathological science](#) Nicholas J. Turro
- [Books on pathological science](#) from the North Texas Skeptics

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[Blondlot](#)

reader comments:

Blondlot

6 Aug 1998

*I recently read your article on Blondlot in your excellent **Skeptic's Dictionary**. An interesting sidelight on the case is provided by William Broad and Nicholas Wade in **Betrayers of the Truth** (Oxford University Press). I quote: "The reason why the best French physicists of their day continued to support Blondlot after Wood's critique was perhaps the same as the reason for which they uncritically accepted Blondlot's findings in the first place. It all had to do with a sentiment that is supposed to be wholly foreign to science: national pride. By 1900 the French had come to feel that their international reputation in science was on the decline, particularly with respect to the Germans. The discovery of N-rays came just at the right time to soothe the self-doubts of the rigid French scientific hierarchy."*

Nicholas Clarke

reply: National pride has also been invoked to explain why some British anthropologists accepted Piltdown man. Too bad the French couldn't wait a bit. [Antoine Becquerel](#), a French physicist who discovered natural radioactivity, and [Marie and Pierre Curie](#) were awarded the 1903 Nobel Prize in physics. That should have helped their national pride



[Blondlot](#)

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the "blue sense"

The "blue sense" is a cop's intuition about impending danger, about whether a suspect is guilty, about whether someone's lying, about hunches regarding cases or people. The term is used by Lyons and Truzzi to refer to something akin to psychic power possessed by good cops. "It is that unknown quantity in the policeman's decision-making process that goes beyond what he can see and hear and smell." (Lyons and Truzzi, p. 11)

Studies have not validated the "blue sense," but there is good evidence that some people, including some cops, reliably infer others' emotions, intentions, and thoughts by their demeanor and facial expressions (Eckman and Friesen 1975; Eckman and Rosenberg 1979).

See related entry on [psychic detectives](#).

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psychic detectives

Psychic detectives (PDs) are alleged [psychics](#) who offer to help law enforcement agencies solve crimes.

In their book, *The Blue Sense: Psychic Detectives and Crime*, Arthur Lyons and Marcello Truzzi list many reasons people without any psychic powers gain a reputation for assisting in the detection of crime. In many cases, most of the evidence in favor of the psychic detective is provided to the mass media by the psychic rather than by an independent source. The mass media is rarely critical or skeptical of the claims of psychics. For example, alleged psychic detective Sylvia Browne has declared many times that she has used her psychic powers to solve crimes, yet it is rare to see her challenged as she was by *Brill's Content*.

***Brill's Content* has examined ten recent Montel Williams programs that highlighted Browne's work as a psychic detective (as opposed to her ideas about "the afterlife," for example), spanning 35 cases. In 21, the details were too vague to be verified. Of the remaining 14, law-enforcement officials or family members involved in the investigations say that Browne had played no useful role.**

"These guys don't solve cases, and the media consistently gets it wrong," says Michael Corn, an investigative producer for "Inside Edition" who produced a story last May debunking psychic detectives. Moreover, the FBI and the National Center for Missing & Exploited Children maintain that to their knowledge, psychic detectives have never helped solve a single missing-person case.

"Zero. They go on TV and I see how things go and what they claim but no, zero," says FBI agent Chris Whitcomb. "They may be remarkable in other ways, but the FBI does not use them" ("Prophet Motive," *Brill's Content*, November 27, 2000).

Browne has made many claims on the "Larry King Show" about her great crime-solving powers, including the claim that she solved the 1993 World Trade Center bombing. James Randi challenged another of Browne's claims, made on "Larry King," to be working with Stephen Xanthos of the Rumson, New Jersey, police department. She said she was getting ready to close a case.

....no person named Xanthos ever worked with that police

department, though there was a Stephen Xanthos who was canned from another New Jersey police department. Looking a little further into this mythical claim of Sylvia's, we discovered that Xanthos had a private investigator's license at one time, but it expired in 1994. It's interesting to note that if this man really had been working with Browne, as she stated he was on the Larry King show, he would be subject to charges of a third degree felony, under New Jersey State law - that's on a par with burglary and car theft. Not that we ever believed Sylvia was telling the truth, but she should be a bit more clever with her mendacity ([Randi](#)).

There are other reasons for the undeserved reputations of psychic detectives besides blowing their own horns to an uncritical media. They do sometimes guess correctly. Everybody can have a 50% hit rate if we guess "dead" or "alive" about a missing person. The odds are good that by the time a psychic gets involved in a missing person case, the person is probably dead. The events predicted by PDs are commonplace events which are predicted by thousands of psychics every year. (A missing person will be either dead or alive; if dead probably buried; if buried probably in a remote place such as the woods. Shallow graves are likely to be pretty common, too. How many killers take the time to dig a deep grave? Yet, predicting that a body will be found in a shallow grave in a wooded area is taken by some to be truly astounding if it turns out to be the case.) In other words, some PDs' "visions" are bound to be "correct" often enough for the credulous to be duped. What seems like an accurate perception is due to its vagueness, commonness, and the latitude available as to what will count as a psychic hit. E.g., "I see water near the body;" "I see trees." Some PDs are very skilful in their use of vagueness and ambiguity, and provide "the verbal equivalent of a [Rorschach test](#)," according to Piet Hein Hoebens, one of Truzzi's collaborators in a "Psychic Sleuths" project.

Lyons and Truzzi note that, over time, reports of psychic achievements get exaggerated and distorted. Vague claims become specific. Errors become replaced with correct predictions. Events that never happened become "facts." Often, the PD herself or himself is the source of this historical reconstructionism. Sometimes a psychic's "predictions" are made after an event, but claimed to have been made before it, like Sylvia Browne's claim after the September 11th terrorist attacks that she had predicted it.

Some of the undeserved reputation of PDs comes from their clients: the police or relatives of crime victims. The clients count misses and errors as hits. For example, Browne told a woman her husband died of a "clot" and, even though he died of a hemorrhage, the client agreed that Brown was right, even though the difference between the two is like the difference between a plugged drain and a burst pipe.

Clients often take coincidences for hits. Sometimes, as Lyons and Truzzi point out, the information provided by the PD was garnered from another source, often from an unwitting law enforcement agent. The psychic just feeds back information initially provided by the client himself. Some psychic successes are merely self-fulfilling prophecies. Clients find ways to retrofit facts with the vague and ambiguous pronouncements of the psychic. Clients also often use [selective thinking](#), remembering what seems accurate and forgetting what was clearly not on the mark. Furthermore, the mass media publishes stories about alleged psychic successes, while generally ignoring stories about psychic failures and frauds. Reputations are thereby created and enhanced from trivial or paltry evidence of psychic detective powers.

According to Lyons and Truzzi, PDs often use [shotgunning](#) to providing information, i.e., they provide a large quantity of information, some of which is bound to fit the case. Shotgunning relies on [confirmation bias](#) and [cold reading](#), the [Forer effect and Barnum-type statements](#): the cop tunes in to the info that is correct and ignores what isn't and unknowingly gives cues to the psychic as he or she fires salvo after salvo.

Some PDs are simply frauds, according to Lyons and Truzzi. Some psychics even use accomplices to accomplish their frauds and deceptions. Some bribe informants, including police officers, for information they pass off as acquired by psychic means.

While it is true that some cops believe in psychics, many simply use them for their own purposes. Lyons and Truzzi tell the story of a cop who considered psychic Noreen Reiner's drawing of a circle to be a correct clue in a crime because the person arrested drove a cement mixer. Another cop considered Dorothy Allison's clues in a case to be on the money even though she predicted a missing person was dead who was not dead but was living in a religious cult community. The cop admitted he was baffled by Allison's error about the person being dead but which way was he dead? asked the cop, "Biologically? Clinically? Dead tired?" However, such [wishful thinking](#) and [self-deception](#) seem to be the exception rather than the rule among law enforcement officers. Cops are more likely to use psychics to cover up their real sources of information, to protect an informant, or to conceal the fact that information was obtained illegally. Finally, some cops use psychics, or even pretend to be psychic, to psyche out superstitious suspects.

Lyons and Truzzi also note that many PDs simply use their intelligence, reason inductively and deductively, play hunches, examine evidence, make careful observations, listen attentively, consider alternatives, follow their intuition, etc., just like "real" cops do. In some cases, the PDs have more experience with certain types of crimes than the cops they work with.

Despite the very strong evidence that most psychic detectives are deluded or

frauds, Lyons and Truzzi divide the world of psychics into psychics and pseudo-psychics. Pseudo-psychics are divided into authentic (those who are not aware that they are using tricks or ordinary means of perception, information gathering, reasoning, etc.) and unauthentic (the outright frauds). To support their notion that at least some of the PDs may truly be psychic, Lyons and Truzzi note that

Some people have an unusually acute sense of vision, hearing, or smell, what psychologists call hyperesthesia. A recent example was a New Jersey doctor [Arthur G. Lintgen] who was able to examine an unlabeled classical recording and ascertain the music and sometimes even the conductor just by looking at the grooves.

The authors take such an ability as evidence of some extraordinary power ([vinyl vision](#)), but Dr. Lintgen has a different explanation: The trick is to examine the physical construction of the recording and look at the relative playing time of each one of the movements or separations on the recording ([Seckel](#)).

Dr. Lintgen also used other quite ordinary inductive and deductive powers to identify such arcane bits of information as the nationality of the orchestra. One thing he didn't do, however, was deceive himself or others regarding his talent, a bit of honesty seemingly lost on many of today's self-proclaimed psychics.

See **related entries** on [clairvoyance](#), [Jeane Dixon](#), [Uri Geller](#), [psychics](#), and [James Van Praagh](#).

further reading

[reader comments](#)

- [How Psychic Sleuths Waste Police Resources](#) by Joe Nickell
- [Sensing Just How to Help the Police](#) by Al Seckel
- ["Psychics" exploiting missing children](#) from the Klass Kids Foundation
- [Articles on Florida "psychic detective" Noreen Renier](#) by Gary P. Posner
- [The Man Who Could Read Record Grooves](#) by Al Seckel, Los Angeles Times, October 19, 1987

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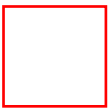
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Bridey Murphy

Bridey Murphy was a 19th century woman from Cork, Ireland, who began speaking through Virginia Tighe in Pueblo, Colorado, in 1952 when Morey Bernstein, a local businessman and amateur hypnotist, hypnotized her. Bernstein encouraged [past life regression](#) of his subject and she cooperated by speaking in an Irish brogue and claiming to be a 19th century woman in Ireland. Bernstein hypnotized Tighe many times after that. While under [hypnosis](#), she sang Irish songs and told Irish stories, always as Bridey Murphy. Bernstein's book, *The Search for Bridey Murphy*, became a best-seller. (Tighe is called Ruth Simmons in the book.) Recordings of the hypnotic sessions were made and translated into more than a dozen languages. The recordings sold well, too. The [reincarnation](#) boom in American publishing had begun.

Newspapers sent reporters to Ireland to investigate. Was there a red-headed Bridey Murphy who lived in Ireland in the nineteenth century? Who knows, but one paper--the *Chicago American*--found one in Wisconsin in the 20th century. Bridie Murphey Corkell lived in the house across the street from where Virginia Tighe grew up. What Virginia reported while hypnotized were not memories of a previous life but memories from her early childhood. Whatever else the hypnotic state is, it is a state where one's fantasies are energetically displayed. Many people were impressed with the details of Tighe's hypnotic memories, but the details were not evidence of past life regression, reincarnation, or [channeling](#). They were evidence of a vivid imagination, a confused memory, fraud, or a combination of the three.

It is indicative of the typical lowering of the standards of critical thinking when it comes to belief in the supernatural that defenders of preposterous stories such as this one find easily accessible information to be incontrovertible proof of their veracity. For example, Tighe talks about kissing the Blarney stone and knew that the act requires the assistance of someone who holds you as you lean backwards and face up to kiss the stone. This is common knowledge and photos of this are available in hundreds of sources, yet this fact has been cited as strong evidence that Tighe really kissed the stone in a previous incarnation.* Yet, these same proponents of the strange and occult are not concerned that the kind of reincarnation they are considering contradicts everything we know about how [memory](#) works, not to mention that it is impossible to explain without rejecting everything we know about human consciousness and the brain. Such beliefs are works of pure

imagination, which we tolerate in cartoons and for entertainment, but which any rational creature should rebuke in those who claim to be seeking the truth.

As Martin Gardner says, "Almost any hypnotic subject capable of going into a deep trance will babble about a previous incarnation if the hypnotist asks him to. He will babble just as freely about his future incarnations....In every case of this sort where there has been adequate checking on the subject's past, it has been found that the subject was weaving together long forgotten bits of information acquired during his early years" (Gardner 1957).

See related entries on [channeling](#), [hypnosis](#), [past life regression](#) and [reincarnation](#).

further reading

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- ["Is it possible to recall past lives through hypnosis?" - Cecil Adams](#)

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false memory

A false memory is a memory which is a distortion of an actual experience, or a [confabulation](#) of an imagined one. Many false memories involve confusing or mixing fragments of memory events, some of which may have happened at different times but which are remembered as occurring together. Many false memories involve an error in [source memory](#). Some involve treating [dreams](#) as if they were playbacks of real experiences. Still other false memories are believed to be the result of the prodding, leading, and suggestions of therapists and counselors. Finally, [Dr. Elizabeth Loftus](#) has shown not only that it is possible to implant false memories, but that it is relatively easy to do so (Loftus, 1994).

A memory of your mother throwing a glass of milk on your father when in fact it was your father who threw the milk is a false memory based upon an actual experience. You may remember the event vividly and be able to "see" the action clearly, but only corroboration by those present can determine whether your memory of the event is accurate. Distortions such as switching the roles of people in one's memory are quite common. Some distortions are quite dramatic, such as the following examples of false memories due to confusion about the source of the memory.

A woman accused memory expert Dr. Donald Thompson of having raped her. Thompson was doing a live interview for a television program just before the rape occurred. The woman had seen the program and "apparently confused her memory of him from the television screen with her memory of the rapist" (Schacter, 1996, 114).

Jean Piaget, the great child psychologist, claimed that his earliest memory was of nearly being kidnapped at the age of 2. He remembered details such as sitting in his baby carriage, watching the nurse defend herself against the kidnapper, scratches on the nurse's face, and a police officer with a short cloak and a white baton chasing the kidnapper away. The story was reinforced by the nurse and the family and others who had heard the story. Piaget was convinced that he remembered the event. However, it never happened. Thirteen years after the alleged kidnapping attempt, Piaget's former nurse wrote to his parents to confess that she had made up the entire story. Piaget later wrote: "I therefore must have heard, as a child, the account of this story...and projected it into the past in the form of a visual memory, which was a memory of a memory, but false" (Tavris).

Remembering being kidnapped when you were an infant (under the age of three) is a false memory, almost by definition. The left inferior prefrontal lobe is undeveloped in infants, but is required for long-term [memory](#). The

elaborate encoding required for classifying and remembering such an event cannot occur in the infant's brain.

The brains of infants and very young children are capable of storing *fragmented* memories, however. Fragmented memories can be disturbing in adults. Schacter notes the case of a rape victim who could not remember the rape, which took place on a brick pathway. The words *brick* and *path* kept popping into her mind, but she did not connect them to the rape. She became very upset when taken back to the scene of the rape, though she didn't remember what had happened there (Schacter 1996, 232). Whether a fragmented memory of infant abuse can cause significant psychological damage in the adult has not been scientifically established, though it seems to be widely believed by many psychotherapists.

What is also widely believed by many psychotherapists is that many psychological disorders and problems are due to the [repression](#) of memories of childhood sexual abuse. On the other hand, many psychologists maintain that their colleagues doing [repressed memory therapy](#) (RMT) are encouraging, prodding, and suggesting false memories of abuse to their patients. Many of the recovered memories are of being sexually abused by parents, grandparents, and ministers. Many of those accused claim the memories are false and have sued therapists for their alleged role in creating false memories.

It is as unlikely that all recovered memories of childhood sexual abuse are false as that they are all true. What is known about [memory](#) makes it especially difficult to sort out true from distorted or false recollections. However, some consideration should be given to the fact that certain brain processes are necessary for any memories to occur. Thus, memories of infant abuse or of abuse that took place while one was unconscious are unlikely to be accurate. Memories that have been directed by [dreams](#) or [hypnosis](#) are notoriously unreliable. Dreams are not usually direct playbacks of experience. Furthermore, the data of dreams is generally ambiguous. Hypnosis and other techniques that ply upon a person's suggestibility must be used with great caution lest one create memories by suggestion rather than pry them loose by careful questioning.

Furthermore, memories are often mixed; some parts are accurate and some are not. Separating the two can be a chore under ordinary circumstances. A woman might have consciously repressed childhood sexual abuse by a neighbor or relative. Some experience in adulthood may serve as a retrieval cue and she remembers the abuse. This disturbs her and disturbs her dreams. She has nightmares, but now it is her father or grandfather or priest who is abusing her. She enters RMT and within a few months she recalls vividly how her father, mother, grandfather, grandmother, priest, etc., not only sexually abused her but engaged in horrific [satanic rituals](#) involving human sacrifices and cannibalism. Where does the truth lie? The patient's memories are real

and horrible, even if false. The patient's suffering is real whether the memories are true or false. And families are destroyed whether the memories are true or false.

Should such memories be taken at face value and accepted as true without any attempt to prove otherwise? Obviously it would be unconscionable to ignore accusations of sexual abuse. Likewise, it is unconscionable to be willing to see lives and families destroyed without at least trying to find out if any part of the memories of sexual abuse are false. It also seems inhumane to encourage patients to recall memories of sexual abuse (or of being [abducted by aliens](#)) unless one has a very good reason for doing so. Assuming all or most emotional problems are due to repressed memories of childhood sexual abuse is not a good enough reason to risk harming a patient by encouraging delusional beliefs and damaging familial relationships. Assuming that if you can't disprove that a patient was abducted by aliens, then he probably was, is not a good enough reason. A responsible therapist has a duty to help a patient sort out delusion from reality, dreams and confabulations from truth, and real abuse from imagined abuse. If good therapy means the encouragement of delusion as standard procedure, then good therapy may not always be worth it.

Finally, those who find that it is their duty to determine whether a person has been sexually abused or whether a memory of such abuse is a false memory, should be well versed in the current scientific literature regarding memory. They should know that all of us are pliable and suggestible to some degree, but that children are especially vulnerable to suggestive and leading questioning. They should also remember that children are highly imaginative and that just because a child says he or she remembers something does not mean that he or she does. However, when children say they do *not* remember something, to keep questioning them until they do remember it, is not good interrogation.

Investigators, counselors, and therapists should also remind themselves that many charges and memories are heavily influenced by media coverage. People charged with or convicted of crimes have noticed that their chances of gaining sympathy increase if others believe they were abused as children. People with grudges have also noticed that nothing can destroy another person so quickly as being charged with sexual abuse, while at the same time providing the accuser with sympathy and comfort. Emotionally disturbed people are also influenced by what they read, see, or hear in the mass media, including stories of repressed abuse as the cause of emotional problems. An emotionally disturbed adult may accuse another adult of abusing a child, not because there is good evidence of abuse, but because the disturbed person imagines or fears abuse. In short, investigators should not rush to judgment.

See related entries on : [Bridie Murphy](#), [dianetics](#), [hypnosis](#), [memory](#), [mind](#), [multiple personality disorder](#), [repressed memory](#), [repressed memory therapy](#),

and [the unconscious](#).

further reading

[reader comments](#)

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- ["Recovering Memory"](#) by John Frow
- ["Remembering Dangerously"](#) by Elizabeth Loftus
- [Memories of Things That Never Were](#) by Jane Brody (NY Times 4/25/00)
- [False Memory Syndrome Foundation WWW Page](#)
- [Recovered Memories or Modern Witch Hunt?](#) by Douglas E. Hill
- [Recovered Memory Therapy and False Memory Syndrome](#) by John Hochman, M.D.
- [Witchhunt Links](#)
- [Review](#) of Daniel Schacter's *Searching for Memory*
- [Recovered Memories of Sexual Abuse: Scientific Research & Scholarly Resources](#) by Jim Hopper, M.A.
- [StopBadTherapy.com](#)
- [The British False Memory Society](#)
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free will

Free will is probably located in the pre-frontal cortex, and we may even be able to narrow it down to the ventromedial pre-frontal cortex. **Stephen Pinker**

Free will is a concept in traditional philosophy used to refer to the belief that human behavior is not absolutely determined by external causes, but is the result of choices made by an act of will by the agent. Such choices are themselves not determined by external causes, but are determined by the motives and intentions of the agent, which themselves are not absolutely determined by external causes.

Traditionally, those who deny the existence of free will look to fate, supernatural powers, or material causes as the determinants of human behavior. Free will advocates, or *libertarians*, as they are sometimes called, believe that while everything else in the universe may be the inevitable consequence of external forces, human behavior is unique and is determined by the agent, not by God or the stars or the laws of nature.

The traditional concept of free will enters the mainstream of Western Philosophy in metaphysical questions about human responsibility for moral behavior. Many modern debates about free will are often couched in terms of responsibility for moral and criminal behavior. In the Christian tradition, which has framed the issues surrounding free will, the belief hinges on a metaphysical belief in non-physical reality. The will is seen as a faculty of the soul or mind, which is understood as standing outside of the physical world and its governing laws. Hence, for many, a belief in materialism is taken to imply a denial of free will.

The modern view of [determinism](#) and free will does not see the two concepts as mutually exclusive. This view began to take shape with arguments such as those offered by Thomas Hobbes (*Leviathan*, XXI). God is the ultimate cause of every action, argued Hobbes, but as long as a person is not physically forced to do an act, the act is free. Hobbes couched the argument in terms of liberty vs. necessity, rather than free vs. externally determined will. The sequence of causes leading to a person being blown off a cliff by the wind would be said to have led to an event which was the necessary effect of a series of causes. A person jumping off the cliff would also have a series of causes which led up to it, but if the person was not chased off the cliff and jumped without any immediate material cause necessitating the jump, then the act is one of liberty.

Hobbes' view shows progress for reconciling materialism, determinism and

free will, but it is unsatisfactory. While it makes the case that materialism and determinism do not imply that humans have no metaphysical liberty, it does not address the issue of internal determining causes. It is unlikely a modern materialist would make the argument that regardless of a person's neurochemical state, if the person is not pushed or chased off the cliff, but jumps, say, while under the delusion that she can fly, the act is one of liberty.

A modern view, which sees no contradiction between believing in free will and materialism, would be couched in neurological terms. The key issue stemming from the free will/determinism debate is the issue of responsibility for one's actions. Responsibility, however, has at least two essential components: control and understanding. Even early Christian philosophers, such as St. Augustine and St. Thomas Aquinas, considered infants, young children and imbeciles, as lacking in control or understanding, not lacking in some metaphysical entity needed for free acts. It is an obvious absurdity to ascribe free will to infants, young children or the insane. Traditional libertarians held that only when a child had reached "the age of reason" did free will kick in. For those who never attained the capacity for adult rational thinking, free will never kicked in.

All our concepts of praise and blame, punishment and reward, depend upon our belief in human responsibility. A person who has an undeveloped or damaged brain or a neurochemical disorder is not responsible for her thoughts or actions *if the condition causes an inability to understand or control them*. Being able to control one's behavior is not a *sufficient* condition for holding a person responsible for her actions. A mentally ill or retarded person or a child may be incapable of understanding the nature of their actions, though capable of controlling their behavior. The incapacity to understand the nature of an act absolves one of responsibility for the act, if not for the behavior. For example, a person might intentionally jump off a cliff but not intend to kill himself. He may have been responsible for jumping off the cliff, but it would be a mistake to say he committed suicide if he thought he could fly and did not intend to kill himself.

Since brain development, damage, and disorders occur in degrees, it follows that understanding and control of thoughts and actions occur in degrees. At one extreme, a person may have little or no control over his or her thoughts and actions. Such a person would be a paradigm case of someone lacking free will. At the other extreme, a person may have an apparent superhuman ability to control his or her thoughts and actions. Someone with such self-discipline would be the paradigm of truly free person in the metaphysical sense of 'free'. To claim that to be truly free one must not be bound by laws of cause and effect is absurd and unnecessary. It is unnecessary for the reasons just given. It is absurd, for it requires free acts to be *uncaused* acts. On this notion, the only free person would be the one who had no clue as to what his or her next thought or action would be. Such a person would be as *unfree* as one could imagine.

Today, the focus of the debate over human responsibility is on the capacity to control one's thoughts and actions, rather than on the metaphysical presence or absence of a non-physical entity with will. Determinism is compatible with 'free will', though the term should be abandoned to indicate that the issue is one of capacity for controlling one's thoughts and actions. That capacity is independent of the truth of [materialism](#) or [dualism](#). Certain neurophysical and neurochemical conditions must hold before one can enjoy whatever freedom our species is capable of. A better understanding of these issues will not come from traditional philosophers debating free will vs. determinism. Neuroscientists will provide the knowledge, neurophilosophers the understanding.

See **related entries** on [determinism](#), [dualism](#), [memory](#), [mind](#), [naturalism](#) and [souls](#).

further reading

[reader comments](#)

- [John Locke's views](#) Book II - Chapter XXI, "Of Power," from the *Essay Concerning Human Understanding*
- [Thomas Aquinas's view](#)

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the devious tactics
used by Scientology
to recruit new
members in the
aftermath of the anti-
American terrorist
attacks on 9/11/01 see
Rod Keller's page on
Scientology.](#)

Dianetics (the "Bible" of Scientology)

"Hubbard reveals a deep-seated hatred of women....When Hubbard's Mama's are not getting kicked in the stomach by their husbands or having affairs with lovers, they are preoccupied with AA [attempted abortion]-usually by means of knitting needles" (Gardner, 267).

In 1950, Lafayette Ronald Hubbard published *Dianetics: The Modern Science of Mental Health*. [Published by The American Saint Hill Organization, Los Angeles. All page references are to this hard back edition.] The book is the "bible" for Scientology, which calls itself a science, a Church and a religion. Hubbard tells the reader that dianetics "...contains a therapeutic technique with which can be treated all inorganic mental ills and all organic psychosomatic ills, with assurance of complete cure...." He claims that he has discovered the "single source of mental derangement" (Hubbard, 6). However, in a disclaimer on the frontispiece of the book, we are told that "Scientology and its sub-study, Dianetics, as practiced by the Church...does not wish to accept individuals who desire treatment of physical illness or insanity but refers these to qualified specialists of other organizations who deal in these matters." The disclaimer seems clearly to have been a protective mechanism against lawsuits for practicing medicine without a license; for, the author repeatedly insists that dianetics can cure just about anything which ails you. He also repeatedly insists that dianetics is a science. Yet, just about anyone familiar with scientific texts will be able to tell from the first few pages of *Dianetics* that the text is no scientific work and the author no scientist. Dianetics is a classic example of a [pseudoscience](#).

On page 5 of *Dianetics*, Hubbard asserts that a science of mind must find "a single source of all insanities, psychoses, neuroses, compulsions, repressions and social derangements." Such a science, he claims, must provide "Invariant scientific evidence as to the basic nature and functional background of the human mind." And, this science, he says, must understand the "cause and cure of all psycho-somatic ills...." Yet, he also claims that it would be unreasonable to expect a science of mind to be able to find a single source of all insanities, since some are caused by "malformed, deleted or pathologically injured brains or nervous systems" and some are caused by doctors. Undaunted by this apparent contradiction, he goes on to say that this science of mind "would have to rank, in experimental precision, with physics and chemistry." He then tells us that dianetics is "...an organized science of thought built on definite axioms: statements of natural laws on the order of those of the physical sciences" (Hubbard, 6).

There are broad hints that this so-called science of the mind isn't a science at all in the claim that dianetics is built on "definite axioms" and in his *a priori* notion that a science of mind must find a *single* source of mental and psychosomatic ills. Sciences aren't built on axioms and they don't claim *a priori* knowledge of the number of causal mechanisms which must exist for any phenomena. A real science is built on tentative proposals to account for observed phenomena. Scientific knowledge of causes, including how many kinds there are, is a matter of discovery not stipulation. Also, scientists generally respect logic and would have difficulty saying with a straight face that this new science must show that there is a single source of all insanities except for those insanities that are caused by other sources.

There is other evidence that dianetics is not a science. For example, his theory of mind shares little in common with modern neurophysiology and what is known about the brain and how it works. According to Hubbard, the mind has three parts. "The analytical mind is that portion of the mind which perceives and retains experience data to compose and resolve problems and direct the organism along the four dynamics. It thinks in differences and similarities. The reactive mind is that portion of the mind which files and retains physical pain and painful emotion and seeks to direct the organism solely on a stimulus-response basis. It thinks only in identities. The somatic mind is that mind, which, directed by the analytical or reactive mind, places solutions into effect on the physical level" (Hubbard, 39).

According to Hubbard, the single source of insanity and psychosomatic ills is the *engram*. Engrams are to be found in one's "engram bank," i.e., in the reactive mind." The "reactive mind," he says, "can give a man arthritis, bursitis, asthma, allergies, sinusitis, coronary trouble, high blood pressure, and so on down the whole catalogue of psycho-somatic ills, adding a few more which were never specifically classified as psycho-somatic, such as the common cold" (Hubbard, 51). One searches in vain for evidence of these claims. We are simply told: "These are scientific facts. They compare invariably with observed experience" (Hubbard, 52).

An engram is defined as "a definite and permanent trace left by a stimulus on the protoplasm of a tissue. It is considered as a unit group of stimuli impinged solely on the cellular being" (Hubbard, 60 note). We are told that engrams are only recorded during periods of physical or emotional suffering. During those periods the "analytical mind" shuts off and the reactive mind is turned on. The analytical mind has all kinds of wonderful features, including being incapable of error. It has, we are told, standard memory banks, in contrast to the reactive bank. These standard memory banks are recording all possible perceptions and, he says, they are perfect, recording exactly what is seen or heard, etc.

What is the evidence that engrams exist and that they are "hard-wired" into cells during physically or emotionally painful experiences? Hubbard doesn't say that he's done any laboratory studies, but he says that

in dianetics, on the level of laboratory observation, we discover much to our astonishment that cells are evidently sentient in some currently inexplicable way. Unless we postulate a human soul entering the sperm and ovum at conception, there are things which no other postulate will embrace than that these cells are in some way sentient (Hubbard, 71).

This explanation is not on the "level of laboratory observation" but is a false dilemma and [begs the question](#). Furthermore, the theory of souls entering zygotes has at least one advantage over Hubbard's own theory: it is not deceptive and is clearly metaphysical. Hubbard tries to clothe his metaphysical claims in scientific garb.

The cells as thought units evidently have an influence, as cells, upon the body as a thought unit and an organism. We do not have to untangle this structural problem to resolve our functional postulates. The cells evidently retain engrams of painful events. After all, they are the things which get injured....

The reactive mind may very well be the combined cellular intelligence. One need not assume that it is, but it is a handy structural theory in the lack of any real work done in this field of structure. The reactive engram bank may be material stored in the cells themselves. It does not matter whether this is credible or incredible just now....

The scientific fact, observed and tested, is that the organism, in the presence of physical pain, lets the analyzer get knocked out of circuit so that there is a limited quantity or no quantity at all of personal awareness as a unit organism (Hubbard, 71).

Hubbard asserts that these are scientific facts based on observations and tests, but the fact is there hasn't been any real work done in this field. The following illustration is typical of the kind of "evidence" provided by Hubbard for his theory of engrams.

A woman is knocked down by a blow. She is rendered "unconscious." She is kicked and told she is a faker, that she is no good, that she is always changing her mind. A chair is overturned in the process. A faucet is running in the kitchen. A car is passing in the street outside. The engram contains a running record of all these perceptions: sight, sound, tactile, taste, smell, organic sensation, kinetic sense,

joint position, thirst record, etc. The engram would consist of the whole statement made to her when she was "unconscious": the voice tones and emotion in the voice, the sound and feel of the original and later blows, the tactile of the floor, the feel and sound of the chair overturning, the organic sensation of the blow, perhaps the taste of blood in her mouth or any other taste present there, the smell of the person attacking her and the smells in the room, the sound of the passing car's motor and tires, etc" (Hubbard, 60).

How this example relates to insanity or psycho-somatic ills is explained by Hubbard this way:

The engram this woman has received contains a neurotic positive suggestion....She has been told that she is a faker, that she is no good, and that she is always changing her mind. When the engram is restimulated in one of the great many ways possible [such as hearing a car passing by while the faucet is running and a chair falls over], she has a feeling' that she is no good, a faker, and she will change her mind (Hubbard, 66).

There is no possible way to empirically test such claims. A "science" that consists of nothing but such claims is not a science, but a pseudoscience.

Hubbard claims that enormous data has been collected and not a single exception to his theory has been found (Hubbard, 68). We are to take his word on this, apparently, for all the "data" he presents are in the form of anecdotes or made-up examples like the one presented above.

Another indication that dianetics is not a science, and that its founder hasn't a clue as to how science functions, is given in claims such as the following: "Several theories could be postulated as to why the human mind evolved as it did, but these are theories, and dianetics is not concerned with structure" (Hubbard, 69). This is his way of saying that it doesn't concern him that engrams can't be observed, that even though they are defined as permanent changes in cells, they can't be detected as physical structures. It also doesn't bother him that the cure of all illnesses requires that these "permanent" engrams be "erased" from the reactive bank. He claims that they aren't really erased but simply *transferred* to the standard bank. How this physically or structurally occurs is apparently irrelevant. He simply asserts that it happens this way, without argument and without proof. He simply repeats that this is a scientific fact, as if saying it makes it so.

Another "scientific fact," according to Hubbard, is that the most harmful engrams occur in the womb. The womb turns out to be a terrible place. It is "wet, uncomfortable and unprotected" (Hubbard, 130).

Mama sneezes, baby gets knocked "unconscious." Mama runs lightly and blithely into a table and baby gets its head stoved in. Mama has constipation and baby, in the anxious effort, gets squashed. Papa becomes passionate and baby has the sensation of being put into a running washing machine. Mama gets hysterical, baby gets an engram. Papa hits Mama, baby gets an engram. Junior bounces on Mama's lap, baby gets an engram. And so it goes (Hubbard, 130).

We are told that people can have "more than two hundred" prenatal engrams and that engrams "received as a zygote are potentially the most aberrative, being wholly reactive. Those received as an embryo are intensely aberrative. Those received as the foetus are enough to send people to institutions all by themselves" (Hubbard, 130-131). What is the evidence for these claims? How could one test a zygote to see if it records engrams? "All these things are scientific facts, tested and rechecked and tested again," he says (Hubbard, 133). But you must take L. Ron Hubbard's word for it. Scientists generally do not expect others to take their word for such dramatic claims.

Furthermore, to get cured of an illness you need a dianetic therapist, called an auditor. Who is qualified to be an auditor? "Any person who is intelligent and possessed of average persistency and who is willing to read this book [*Dianetics*] thoroughly should be able to become a dianetic auditor" (Hubbard, 173). The auditor must use "dianetic reverie" to effect a cure. The goal of dianetic therapy is to bring about a "release" or a "clear." The former has had major stress and anxiety removed by dianetics; the latter has neither active nor potential psycho-somatic illness or aberration (Hubbard, 170). The "purpose of therapy and its sole target is the removal of the content of the reactive engram bank. In a release, the majority of emotional stress is deleted from this bank. In a clear, the entire content is removed" (Hubbard, 174). The 'reverie' used to achieve these wonders is described as an intensified use of some special faculty of the brain which everyone possesses but which "by some strange oversight, Man has never before discovered" (Hubbard, 167). Hubbard has discovered what none before him has seen and yet his description of this 'reverie' is of a man sitting down and telling another man his troubles (Hubbard, 168). In a glorious non sequitur, he announces that auditing "falls utterly outside all existing legislation," unlike [psychoanalysis](#), [psychology](#) and [hypnotism](#) which "may in some way injure individuals or society" (Hubbard, 168-169). It is not clear, however, why telling others one's troubles is a monumental discovery. Nor it is clear why auditors couldn't injure individuals or society, especially since Hubbard advises them: "Don't evaluate data....don't question the validity of data. Keep your reservations to yourself" (Hubbard, 300). This does not sound like a scientist giving sound advice to his followers. This sounds like a guru giving advice to his disciples.

What Hubbard touts as a science of mind lacks one key element that is

expected of a science: empirical testing of claims. The key elements of Hubbard's so-called science don't seem testable, yet he repeatedly claims that he is asserting only scientific facts and data from many experiments. It isn't even clear what such "data" would look like. Most of his data is in the form of anecdotes and speculations such as the one about a patient who believes she was raped by her father at age nine. "Large numbers of insane patients claim this," says Hubbard, who goes on to claim that the patient was actually 'raped' when she was "nine days beyond conception....The pressure and upset of coitus is very uncomfortable to the child and normally can be expected to give the child an engram which will have as its contents the sexual act and everything that was said" (Hubbard, 144). Such speculation is appropriate in fiction, but not in science.

further reading

[reader comments](#)

- [Scientology Secrets](#) by Michael Robinson
- [Scientology Founder - What a Nut!](#) read about L. Ron, his commitment to a mental hospital and the F.B.I.
- [Scientology Associated Deaths](#)
- [Scientologist's death differs in two tellings](#)
- [Scientology Audited](#)
- [My review of *The Rediscovery of the Human Soul* by L. Ron Hubbard](#)
- [Operation Clambake](#) - the fight against Scientology on the Net
- [alt.scientology.war](#) Wendy M. Grossman
- [Scientology: Religion or Intelligence Agency ?](#) by Jon Attack (member for 9 years)
- [Jeff Jacobsen on Scientology](#)
- [Fact Net on Dianetics and Scientology](#)
- [Scientology vs. the Internet](#)
- [Free Zone Association](#) A heretical sect
- [Scientology launches new censorship attack on the Internet](#) by Rick Ross
- [Hollywood, Satanism, Scientology and Suicide "The Fable"](#)
- [Scientology Lies](#)
- [Ron the War Hero](#) by Chris Owen
- [An Experimental Investigation of Hubbard's Engram Hypothesis \(Dianetics\)](#) by Jack Fox, Alvin E. Davis, and B Lebovit *Psychological Newsletter*, 1959, 10 131-134

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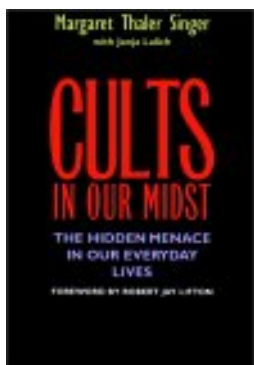
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[SkepDic.com](http://skepdic.com)

[Faculty cult expert helps explain Smart case](#)



[Cults in our Midst by Margaret Thaler Singer](#)

cults

The term 'cult' expresses disparagement and is usually used to refer to unconventional religious groups, though the term is sometimes used to refer to non-religious groups which appear to share significant features with religious cults. For example, there are some who refer to [Amway](#) and [est](#) as cults, but I think the term is best reserved for groups such as [Scientology](#), the [Rev. Sun Myung Moon's Unification Church](#), [Aum Shinrikyo](#), the [Hare Krishnas](#), [David Koresh's Branch Davidians](#), [the Order of the Solar Temple](#) (74 suicides in 1984), [Elizabeth Clare Prophet's Church Universal and Triumphant](#), [the Unarians](#), [Heaven's Gate](#) (39 suicides in 1997), [the Raëlians](#), [the Maharishi Mahesh Yogi's Transcendental Meditation](#) group and the group that followed the [Rev. Jim Jones](#) to Guyana where more than 900 of them joined in a mass murder/suicide ritual in 1978.

Three ideas seem essential to the concept of a cult. One is thinking in terms of **us/them** with **total alienation from them**. The second is the intense, though often subtle, indoctrination techniques used to recruit and hold members. And the third is the charismatic cult leader. Cultism usually involves some sort of belief that outside the cult all is evil and threatening; inside the cult is the special path to salvation through the cult leader and his teachings. The indoctrination techniques include

- 1) **Subjection to stress and fatigue**
 - 2) **Social disruption, isolation and pressure**
 - 3) **Self criticism and humiliation**
 - 4) **Fear, anxiety and paranoia**
 - 5) **Control of information**
 - 6) **Escalating commitment**
 - 7) **Use of auto-hypnosis to induce 'peak' experiences**
- [\[Kevin Crawley\]](#)

Of course, there is a positive side to cults. One gets love, a sense of belonging, of being special, of being protected, of being free from the evils of the world, of being on the path to eternal salvation, of having power. If the cult did not satisfy needs that life outside the cult failed to satisfy, cults would not exist.

One common misconception about cults is that their members are either insane or [brainwashed](#). The evidence for this is pretty slim. It consists mainly of the subjective feeling that no one in their right mind could possibly choose to believe the things which cult members believe. For example, the 39 members of the Heaven's Gate cult believed a space ship was coming to get

them to take them to a "higher level." They believed that their leader, Marshall Applewhite (aka *Do*), was Christ coming to take the chosen few to a better life somewhere in outer space, perhaps to work on a starship like the *Enterprise* one sees in movies and on television. They believed they would be given new bodies in the new world, asexual bodies with no hair or teeth, but vestigial eyes and ears, not those gross bug eyes one sees in so many alien pictures. To many people, these beliefs sound like the delusions of lunatics and it seems inconceivable that anyone in his or her right mind would accept such beliefs unless they were crazy or brainwashed.

Examined closely, however, the beliefs of Heaven's Gate or Scientology are no stranger than the beliefs which billions of "normal" people hold to dearly in their sacred religions. As has been noted by others, delusions held by one is insanity, by a few a cult, and by many a religion. To ask why anyone would believe such non-sense as the Scientologists or Heaven's Gate cult believe regarding alien beings and space ships, fallen angels, [thetans](#), etc., but not ask why anyone would believe in heaven and hell, angels, devils, crucified gods, resurrections, messiahs, [transubstantiation](#), the trinity, etc., seems inherently self-deluded.

It is true that the cult leader or religious founder usually shows signs of brain disease, such as hearing voices or having delusions of grandeur. But the followers need not be mad. Some are undoubtedly deranged, but the vast majority are not likely to be crazy or the cult would not function. The cult leader must be extremely attractive to those who convert. He or she must satisfy a fundamental need, most likely, the need to have someone you can totally trust, depend on and believe in: someone who can give sense and direction to your life; provide you with purpose and meaning. But above all, life with the messiah and the other cult members must fill you with bliss. It should be obvious that people stay in cults because they feel better in the cult than they did outside the cult. Some studies have found that a significant number of cult members are depressed before joining and the cult lifts their spirits, makes them feel much better. Even if they aren't depressed, cult membership must be more satisfying than life in the real world with one's real family and real friends.

Why do people stay in cults? To do so gives them pleasure. They may be deluded and manipulated. Severe control tactics may be used to keep them in the flock, like cutting them off from the rest of the world, especially from their family and friends, communally reinforcing the cult's dogmas, and inculcating paranoia. Isolation, communal reinforcement and the inculcation of paranoia as a control tactics are used by some parents over their children, some political leaders over their citizens, and even some therapists over their patients. So, cults are not unique in attempting to control people using these tactics..

Cult members may gradually become paranoid and be led to believe that the

government, their family and former friends can't be trusted. They may gradually become more isolated and militant. They may even begin to [stockpile weapons](#) for the coming Armageddon. They may turn themselves over completely to their savior and be willing to kill or die for him or her. But they stay because they like it. That is not to say that they are leading meaningful lives, but they are not lunatics, morons or zombies. They are deluded and misguided, to be sure, but they are not stupid or crazy. When they commit crimes in the name of their leader we should not treat them as insane but throw the book at them. When they commit suicide we should be thankful that they turned their hatred of the world against themselves rather than against the rest of us.

See **related entries** on [communal reinforcement](#), [dianetics](#), [mind-control](#), [Rama](#), and the [Urantia Book](#).

further reading

[reader comments](#)

- [Trancenet](#)
- [The Watchman Expositor](#) Index of Cults, Occult Organizations, New Age Groups, New Religious Movements, and World Religions with Related Terms and Doctrines
- [The Watchtower Indoctrination Process](#)
- [Persuasion Techniques Used by Cults \(Singer & Lalich\)](#)
- [The "Not Me" Myth: Orwell and the Mind](#) by Margaret Thaler Singer Ph.D.
- [Ontario Consultants on Religious Tolerance Page on Domsday, Destructive Cults](#)
- [Operation Clambake](#) - the fight against Scientology on the Net
- [The AFF Cult Page](#)
- [Cult Awareness Network \(Bought by a Scientologist to get the files of CAN\)](#)
- [Testimonies of scientologists and critics](#)
- [Steven A. Hassan's Homepage](#) - author of [Releasing the Bonds](#) and [Combating Cult Mind Control](#)
- [Rick Ross, deprogrammer](#)
- [The Cult Next Door](#)

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est and Werner Erhard

"In life, understanding is the booby prize." -- Werner Erhard

Werner Erhard's **est** [Erhard Seminar Training and Latin for "it is"] was one of the more successful entrants in the human potential movement. **est** is an example of what psychologists call a [Large Group Awareness Training program](#).

The first **est** seminar was held in October, 1971, at the Jack Tar Hotel in San Francisco with nearly 1,000 in attendance. Erhard and **est** were known for training people to get "It", a concept taken from author, teacher and expert communicator [Alan Watts](#). At the time Erhard arrived in the Bay Area, Watts was teaching his version of Zen to small groups on his houseboat in Sausalito. Erhard, like Watts, would teach people to "Get It." Watts, however, did most of his teaching through books. His seminars were small. Erhard would not teach through books, but in large hotel ballrooms to hundreds at a time.

(Writing about a program that no longer exists and that was taken by hundreds of thousands of people is risky, to say the least. Clearly, the experiences of those who took the program varied greatly. Whatever I say that resonates with one group of participants will seem false to another group. What follows is an attempt to reflect the background and the experience of **est**, but the reader should realize that whatever I say will be inadequate, perhaps even false, for some participants.)

est adopted, in part, the Zen master approach, which was often abusive, profane, demeaning, and authoritarian. (One of my favorite Zen stories is of the master who asks his disciple a series of questions. No matter what the disciple answers, the master hits him with a stick. Even contradictory answers are met with the stick.) While many participants did not perceive the training as particularly abusive, some were not used to the discipline requested of them. Some have claimed that one typically abusive approach was the requirement of extraordinary bladder control in **est** training. Participants were advised not to leave the room, even to go to the toilet, during training. According to one **est** participant, however, "bathroom breaks were scheduled at regular and reasonable intervals....Two or three rows at the back of the room were reserved for those who required more frequent bathroom breaks (and I think either some sort of documentation or personal insistence were required to qualify). No one was ever physically required to stay in the room at any time" (*personal correspondence*). (This aspect of **est** training was humorously ridiculed in the movie ["Semi-Tough"](#) (1978) with Burt Reynolds and Kris Kristoferson.) In any case, one should expect some sort of discipline and required order for this kind of training. Having people come and go as

they please is distracting and not conducive to the concentration necessary for such a program.

Erhard and Scientology

In the late 1960s, Erhard studied Scientology and [L. Ron Hubbard](#) became a significant influence. Scientologists to this day accuse Erhard of having stolen his main ideas for **est** from Hubbard. We do know that when Erhard set up **est** he considered making it a church, as Hubbard had done with [dianetics](#) and the Church of Scientology. But Erhard decided to incorporate as an educational firm for profit in a broad market.

Erhard and his supporters accuse Scientology of being behind various attempts to discredit Erhard, including hounding by the IRS and accusations of incest by his children. Erhard won a lawsuit against the IRS and the incest accusations may have been based on [false memories](#) induced in therapy.

Erhard has even claimed that Scientologists have hired hit men to kill him, though the most logical explanation for his continued survival is probably that no one is really trying to kill him.

est is not dianetics

est bears little resemblance to *Dianetics* or Scientology, however. **est** is a hodgepodge of philosophical bits and pieces culled from the carcasses of existential philosophy, motivational psychology, Maxwell Maltz's Psycho-cybernetics, Zen Buddhism, Alan Watts, Freud, Abraham Maslow, L. Ron Hubbard, Hinduism, Dale Carnegie, Norman Vincent Peale, P.T. Barnum, and anything else that Erhard's intuition told him would work in the burgeoning Human Potential market. What did Erhard promise those who would shell out hundreds or thousands of dollars for his programs? He promised he would "blow their minds" and raise them to a new level of consciousness. In short, he would make them *special*. He would first tell them that their problem was that they needed to have their consciousness "rewired" and his program would do the rewiring. Once they got their consciousness on straight, life would be good or at least *different*. They would be powerful, confident, successful because they would be independent and in control. They would learn to see things in radically different ways. Nothing would change and yet everything would change. (The same promise was made by Watts for the disciples of Zen .) Nothing could stand in their way and deprive them of all those opportunities in life they had heretofore been denied because of bad programming or wiring. Through **est** they would be set free and born again! All problems and limitations are in the mind. Just rewire the mind, i.e., deconstruct personality, exorcise all negativity, quit blaming others, and learn to accept things.

Erhard's self-training

Where did Erhard get his training? Mostly, he is self-taught. His study was undirected and accidental. In 1960 he was John Rosenberg, a 25-year-old married with children. Apparently dissatisfied with his life but with no Large Group Awareness Training available to him, he did what many unhappy men have done: he abandoned his family. He left Philadelphia and went to St. Louis, changed his name and sold cars. Some might find it interesting that a Christianized Jew (his parents had him baptized in the Episcopal church) would come to identify himself with a German name. Of more interest to his transformation, however, are the books he read and was influenced by. William Warren Bartley III (*Werner Erhard: the Transformation of a Man*) tells us that Erhard was "profoundly dissatisfied with the competitive and meaningless status quo" and was deeply affected by Napoleon Hill's *Think and Grow Rich*.

Hill's three basic principles are: every achievement begins with an idea; plans call for their implementation and; what you think is what you do. Think positive, you will do positive deeds.

Hill also advised visualizing objectives and selecting similar-minded friends. Hill gives good advice, but it is very vague and is not very systematic. It doesn't offer much to people who haven't got a clue what their objectives are or should be. Some of his ideas can be harmful, if not properly applied. For example, some people are taught that they should always talk positive, even if this means lying. Even if you haven't made a sale in two years, you must put on a positive front and tell everyone that business couldn't be better. Even if you know nothing about the product you are selling, you must praise it beyond belief. Even if you are experiencing one failure after another, you must lie to yourself and tell yourself that you are doing great. You must never blame the product for not selling. You must try harder, have more faith, be more positive. Maybe you need to take advanced courses to help you succeed. By the time you wake up, you are bankrupt and those who were cheering you on (your "sponsors") are nowhere to be found.

Another significant influence on Erhard was Maxwell Maltz's *Psycho-cybernetics*. As a young man, Erhard apparently had a lot of negatives in his self-image and was deeply affected by Maltz who emphasized, among other things, self-hypnosis. Erhard put his new ideas and new self to work as a traveling salesman for a correspondence school. His interest in hypnotism had been stimulated by Maltz, but Erhard's focus would be on "programming" and "reprogramming." The idea is not without merit, though the language is unnecessarily cumbersome. The basic idea he came to espouse is that bad habits are programmed into us: we have been "hypnotized" during normal consciousness and that's where our problems arise. Unconsciously, we've developed debilitating habits and beliefs. The point is to get rid of them by replacing them with positive and life-enhancing beliefs and habits. Again, however, the language is very vague, probably too vague to do any meaningful scientific appraisal of them.

By the time Erhard arrived in San Francisco, he'd had jobs selling and managing salespersons for *Great Books* and *Parent's* magazine. He became part of the self-help movement after hiring Robert Hardgrove, who introduced Erhard to the work of [Abraham Maslow](#) and [Carl Rogers](#). Maslow and Rogers were unique in psychology at the time, for they emphasized not the disturbed or ill person, but the healthy, happy, satisfied, accomplishing person. The Human Potential Movement was just getting started and Erhard would be in on the ground floor.

It is estimated that some 700,000 people did the training before the seminars were halted in 1991, when Erhard packed up and left the country [\[Faltermayer\]](#). He sold the est "technology" to some followers who established [Landmark Forum](#). Erhard's brother, Harry Rosenberg, heads Landmark Education Corp. (LEC), which does some \$50 million a year in business and has attracted some 300,000 participants. LEC is headquartered in San Francisco, as was est, and has 42 offices in 11 countries. Apparently, however, Erhard is not involved in the operation of LEC.

See **related entries** on [firewalking](#), [Landmark Forum](#), [Large Group Awareness Training programs](#) and [neurolinguistic programming](#).

further reading

[reader comments](#)

- [Why We Love Gurus](#) by Wendy Kaminer (Newsweek Magazine, October 20, 1997)
- ["The Best Of Est? Werner Erhard's legacy lives on in a kinder, gentler and lucrative version of his self-help seminars"](#) by Charlotte Faltermayer
- [The Sorrows of Werner: For the founder of est, a fresh round of charges](#) *Newsweek*, February 18, 1991
- [Enlightenment in Two Weekends - The est Training](#) by Stephen Pressman
- [Est and Responsibility](#) by Irvin D. Yalom
- ["WE'RE GONNA TEAR YOU DOWN AND PUT YOU BACK TOGETHER"](#) by Mark Brewer, *Psychology Today*, August 1975
- [Abstracts of Articles in Psychological Journals concerning est and The Forum](#)
- [Leader of Est Movement Wins \\$200,000 from IRS](#)
- [News Articles on Werner Erhard](#)
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Rama (a.k.a. Frederick Lenz 1950-1998)

Zen Master Rama was Frederick P. Lenz, Ph.D. (in English literature) and businessman (Advanced Systems, Inc.). Lenz parlayed his knowledge of Hinduism and Buddhism into a cult. In the early 1980s he started calling himself after Rama, the last incarnation of the Hindu deity Vishnu. He started giving seminars in 1982 in Malibu, California. Eventually, thousands of people would pay as much as \$5,000 per seminar to be enlightened by this self-proclaimed guru, psychic, and miracle worker. Here is what one of his followers said he learned from his master: "Spiritually advanced people work with computers because it makes a lot of money. The more money you make, the better you meditate" (Clark and Gallo 1993, 102).

Rama used a variety of so-called [mind-control](#) techniques to seduce his disciples. He had his subjects stare at him for long hours until they would hallucinate and "see" Lenz begin to glow or change shapes. Lenz told his followers that having these "visions" meant they were [psychic](#).

Rama seduced many of his female followers by telling them that he only has sex with women who have a rare sort of [karma](#). He also told women that having sex with him would elevate them to a higher plane of consciousness. It is hard for a skeptic to believe that such a line would work with any woman, but apparently it does.

Rama took religious freedom and [tantric](#) gullibility to new heights in his book *Surfing the Himalayas: A Spiritual Adventure* (1997). There he tells us of his adventures "snowboarding through Tantric myetiolem" and offers such bits of wisdom as

Ultimately, thinking is a very inefficient method of processing data...

And,

The relational way of doing things is to move your mind to a fourth condition, a condition of heightened awareness. In a condition of heightened awareness, you elevate your conscious mind above the stream of extraneous data -- out of dimensional time and space, so to speak -- and you meld your mind instead with the pure intelligent consciousness of the universe.

Bob Frankenberg, Chairman and CEO of Novell, claims the book "entertains and enlightens" and calls it "a wonderful contrast of Eastern spirituality and Western pragmatism." Phil Jackson, coach of the Chicago Bulls, said the book "Brings levity and humor to a subject often relegated to a mundane, boring prospect." The book became a best-seller. Within a year Rama published another cult classic: *Snowboarding to Nirvana*.

Unfortunately, all his Tantric wisdom couldn't save him and the day before taxes were due in 1998, Rama drowned in Conscience Bay near his residence in the exclusive Old Field section of Setauket on Long Island, New York. Rumor has it that he was stoned when he fell off the dock. An unidentified woman described by police as "incoherent" was found to be in Lenz's house at the time his body was recovered by police divers. Lenz was 48 at the time of his death. [Cult](#) expert Joe Szimbart claims that Lenz was suffering from liver cancer and committed suicide by overdosing on Phenobarbital (*Skeptical Inquirer*, July/August 1998). The Suffolk County Medical Examiner's office said it was Valium. Either way, Rama snowboards with the fishes.

See **related entries** on [cults](#) and [mind control](#).

further reading

[reader comments](#)

- [CHRONOLOGY/BIOGRAPHY Frederick Lenz, aka Zen Master Rama](#)
- [Rama Lama Ding Dong](#)
- [The Rama Page](#)
- [Ramalila](#) - "dedicated to Rama's students, past, present and even future!"
- [News of Rama's death](#)

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inedia (breatharianism)

Inedia is the alleged ability to live without food. Some inediates become breatharians, like the [stigmatic](#) Therese Neumann (1898-1962) of Bavaria, who said “one can live on the Holy Breath alone.” She claims to have done this from 1926-1962, during which time she says she only consumed her daily serving of [transubstantiated](#) bread.

Fasting has long been considered a way to purify one’s body and mind. Fasting reminds us of our dependence and weakness, and links us to those who suffer hunger as part of their daily lives. Inediates strive to be spiritual beings and carry fasting to an inhuman level. If restraint, self-control, and reducing one’s intake of food and water are good, then eliminating all physical nourishment must be better. Spiritual beings don’t need food, water, or sleep. Maybe so, but food, water and sleep are not optional for human beings.

One inediate who has been attracting followers to [breatharianism](#) is Australian Ellen Greve, a.k.a. [Jasmuheen](#). According to Greve, a former financial advisor, we can get all the nutrition we need from [prana](#), the universal life force. She is the author of [Living on Light: A Source of Nutrition for the New Millennium](#), a 21-day program that will allow the body to stop aging and attain immortality by living solely on [light](#).

Greve claims she hasn’t eaten since 1993; yet, she admits “she drinks herbal teas and confesses to the occasional ‘taste orgasm’ involving chocolate or ice cream.”* She also admits “if I feel a bit bored and I want some flavour, then I will have a mouthful of whatever it is I’m wanting the flavour of. So it might be a piece of chocolate or it might be a mouthful of a cheesecake or something like that.”* Several interviewers have found her house full of food, but she claims the food is for her husband, who once went to prison for misappropriating a pension fund. Apparently he hasn’t seen the light and is unable to live on prana yet ([Walker and O’Reilly 1999](#)).

Greve runs the [Cosmic Internet Academy](#) (C.I.A.) and claims to have 5,000 followers worldwide. People pay over \$2,000 to attend her seminars. There are many, apparently, who are not bothered by the contradiction of saying one needs only prana (or is it light?) but admits to the odd sweet and cup of tea, and has a house full of food. This “diet” is changing her chromosomes, she says. Her “DNA is changing to take up more hydrogen and is developing from 2 to 12 strands.”* Greve also claims that the starving of the world would be just fine if they could only be “re-programmed”. They starve to death, she says, because the mass media has tricked them into thinking they need food.* Such gibberish would get some people into treatment; instead, she makes

world tours promoting her book. At least three of Greve's followers have [starved to death](#) while trying to purify themselves with total fasting. Despite the dangerousness of her insane teachings, in the fall of 1999, the Australian television program "60 Minutes" tested her ability to live on prana, the "light of God."

After four days of fasting, Dr Berris Wink, president of the Queensland branch of the Australian Medical Association, urged her to stop the test. According to the doctor, Greve's pupils were dilated, her speech was slow, she was dehydrated and her pulse had doubled. The doctor feared kidney damage if she continued with the fast. The test was stopped. Greve claimed that she failed because on the first day of the test she had been confined in a hotel room near a busy road, which kept her from getting the nutrients she needs from the air. "I asked for fresh air. Seventy per cent of my nutrients come from fresh air. I couldn't even breath," she said. However, the last three days of the test took place at a mountainside retreat where she could get plenty of fresh air and where she claimed she could now live happily.* Clearly, had the test continued, she would have died. Instead, she lived to lead others to their deaths.

Another inspiration for breatharianism is [Wiley Brooks](#), who heads The [Breatharian Institute of America](#). For the past thirty years or so, Brooks has been claiming that we don't need food, water, or sleep. He asks "if food is so good for you, how come the body keeps trying to get rid of it?...Man was not designed to be a garbage can." He claims that adepts and yogis have been living on air for millennia. Brooks offers weekend [workshops](#) at a [Sierra Nevada mountain retreat](#) for \$425, meals included.

further reading

- [Correx Files on Jasmuheen](#)
- [A Really Light Lunch](#) by D. Trull
- [A Light Lunch](#)
- [Three deaths linked to 'living on air' cult](#) by Tom Walker and Judith O'Reilly, *Sunday Times* (London), September 26, 1999.
- [I haven't eaten for 5 years](#)
- [The Strange Case of Therese Neumann](#)
- [1998 Charles Darwin Award](#)
- [Fasting guru defends cult as doctors warn that her disciples are on path to suicide](#) *The Express*, September 23, 1999 By Laura Kibby

[Bynum, Caroline Walker. *Holy Feast and Holy Fast: The Religious Significance of Food to Medieval Women* \(U of California Press, 1988\).](#)



[The Indigo Children](#)

[Inset fuel stabilizer](#)



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stigmata

The stigmata are wounds believed to duplicate the wounds of Christ's crucifixion that appear on the hands and feet, and sometimes on the side and head, of a person. The fact that the stigmata appear differently on its victims is strong evidence that the wounds are not genuinely miraculous (Wilson).

[St. Francis of Assisi](#) (1182 - 1226), devoted to imitate Christ in all ways, apparently inflicted himself with wounds and perpetuated the first stigmatic fraud. There have been several hundred others since, including Magdalena de la Cruz (1487-1560) of Spain (who admitted her fraud when she became seriously ill) and Therese Neumann of Bavaria (1898-1962). The latter reportedly survived for 35 years eating only the "bread" of the Holy Eucharist at mass each morning. She was also said to be [clairvoyant](#) and capable of [astral projection](#). One of the more recent stigmatics, Fr. James Bruce, claimed not only to have Christ's wounds but also that religious statues wept in his presence. This was in 1992 in a suburb of Washington, D.C., where strange things are common. Needless to say, he packed the pews. He now runs a parish in rural Virginia where the miracles have ceased.

Self-inflicted wounds are common among people with certain kinds of [brain disorders](#). Claiming that the wounds are miraculous is rare and is more likely due to excessive religiosity than to a diseased brain, though both could be at work in some cases.

The likelihood that the wounds are [psychosomatic](#) (psychogenic purpuras), manifested by tortured souls, seems less likely than hoaxing in most cases. There are two main reasons for believing the stigmata are usually self-inflicted, rather than psychosomatic or miraculous. One, no stigmatic ever manifests these wounds from start to finish in the presence of others. Only when they are unwatched do they start to bleed. ([There is one apparent exception to this rule: Catia Rivas.](#)) And two, Hume's rule in "Of Miracles" is that when an alleged miracle occurs we ask ourselves which would be more miraculous, the alleged miracle or that we are being hoaxed? Reasonableness requires us to go with the lesser of two miracles, the least improbable, and conclude that we are witnessing not miracles but [pious frauds](#). All 32 or so recorded cases of stigmata have been Roman Catholics and all but four of those cases were women. No case of stigmata is known to have occurred before the thirteenth century,* when the crucified Jesus became a standard icon of Christianity in the west. Reasonableness seems to require the non-miraculous explanation.

One of the latest to be added to the list of alleged stigmatics is [Audrey Santo](#),

a child who has been in a coma since 1987 when she was three years old. What kind of people are inspired by the concept of a God who would render a child comatose and then inflict wounds on her? [Joe Nickell thinks he has the answer.](#)

People seem to hunger for some tangible religious experience, and wherever there is such profound want there is the opportunity for what may be called "pious fraud." Money is rarely the primary motive, the usual impetus being to seemingly triumph over adversity, renew the faith of believers, and confound the doubters.

People also don't want to think God would allow purposeless and gratuitous pain. They like to feel important and please those with power over them. What could be more special than being chosen to suffer the Savior's wounds and torments? What could please God more than being a living proof of God's existence? Well, being honest and truthful might be a good start.

See related entry on [miracles](#).

further reading

[reader comments](#)

- [Mass Media Bunk 9 - the stigmata on Fox](#)
- [Mystical Stigmata](#) - *Catholic Encyclopedia*
- [Stigmata: In Imitation of Christ](#) by Joe Nickell
- [What's the deal with stigmata?](#) Cecil Adams, the Straight Dope
- [POPE RUNNING "SAINT FACTORY"? JOHN PAUL BEATIFIES MONK ACCUSED OF MENTAL ILLNESS, FRAUD, PHILANDERING](#) (an unflattering portrayal of Padre Pio, the stigmatic with a crazed following, who died with no signs of any wounds, though he claimed to have been afflicted for some 50 years with the wounds of Christ)
- [James Randi on the Fox Farce](#)
- [Bücher von Josef Hanauer detailing the fraud of Therese Neumann and the involvment of gullible high church officials \(in German\)](#)

[Nickell, Joe. *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books: Buffalo, N.Y., 1993\).](#)

["Miraculous" Phenomena, by Joe Nickell, in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books,](#)

[1996](#)).

[Wilson, Ian. *The Bleeding Mind: An Investigation into the Mysterious Phenomenon of Stigmata* \(London: Weidenfeld and Nicholson, 1988\).](#)

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[Alien-ated Youth -
They're the next step
in human evolution.
But they're just like
everybody else. by
Dylan Krider](#)

The Indigo Children

The Indigo Children is a book by Lee Carroll, a [channeler](#) for an entity he calls [Kryon](#), and his wife [Jan Tober](#).

Kyron has revealed such important messages as "love is the most powerful force in the entire universe." Carroll and Tober travel the world putting on Kryon seminars. Kryon has many interests, including the [Universal Calibration Lattice and EMF Balancing](#) (empowerment through knowledge of your electromagnetic nature, i.e., how to manage your energy field which consist of "fibers of light and energy").

The main thesis of *The Indigo Children* is that many children diagnosed as having attention deficit disorder (ADD) or ADHD (attention deficit hyperactivity disorder) are actually space aliens. These children don't need drugs like Ritalin, but special care and training. The [book](#) consists of dozens of articles by [authors](#) from many walks of life. It is, accordingly, inconsistent and uneven in quality of analysis and advice. One of the authors is Robert Gerard, Ph.D., whose piece is called "Emissaries from Heaven." He believes his daughter is an Indigo Child. He also thinks "Most Indigos see angels and other beings in the etheric." He runs [Oughten House Foundation, Inc.](#), and sells angel cards. Another contributor is Doreen Virtue, an advocate of [angel therapy](#). Still another is Nancy Ann Tappe who wrote a channeled book called *Understanding Your Life Through Color*. Not all the contributors are on the fringe of New Age metaphysics, however. For example, Dr. Judith Spitler McKee is a former preschool and elementary teacher and retired Eastern Michigan University professor. She spends her time trying to interest children in reading.

by their fruitiness you will know them

The Indigo Child is recognizable by his or her [aura](#) and by certain other traits, according to [The Indigo Children website](#) (owned by Kryon Writings).

- **They come into the world with a feeling of royalty (and often act like it)**
- **They have a feeling of "deserving to be here," and are surprised when others don't share that.**
- **Self-worth is not a big issue. They often tell the parents "who they are."**
- **They have difficulty with absolute authority (authority without explanation or choice).**
- **They simply will not do certain things; for example, waiting in line**

is difficult for them.

- They get frustrated with systems that are ritually oriented and don't require creative thought.
- They often see better ways of doing things, both at home and in school, which makes them seem like "system busters" (nonconforming to any system).
- They seem antisocial unless they are with their own kind. If there are no others of like consciousness around them, they often turn inward, feeling like no other human understands them. School is often extremely difficult for them socially.
- They will not respond to "guilt" discipline ("Wait till your father gets home and finds out what you did").
- They are not shy in letting you know what they need.

As with most other purveyors of non-sense, Carroll and Tober often have seemingly reasonable advice to give, such as the following [advice](#) to parents and students:

Parents: Know what your children are doing and thinking. Find out how they feel. Show them you care. Pester them until they tell you! Then listen.

Classmates: Befriend an outcast or loner at school. Start including them, not excluding them. Take a stand on this! It isn't easy, but it will make a big difference in another's life

One doesn't need an entity name Kryon to tell you that.

One [reviewer](#) of the book writes:

As a parent of child with ADD, I have read a great deal of material about children with these types of problems. Unfortunately, this book was very disappointing in its discussion of these issues. The definition of an indigo child was confusing and incoherent. The suggestions for discipline didn't begin to touch on the special needs for these children and things that really can be done to help them. Some of the essays negated research findings without providing any evidence. For example, research has shown for a long time that diet doesn't impact ADD. This was disproved by numerous studies over 30 years ago. This book reflects the feeling of some people on these issues. It has some really far out ideas, like these children come from another planet. I don't believe my daughter comes from another planet. She is a beautiful gift from God, and there are lots of resources out there to help her and others like her. But this book isn't one of them.

Another writes:

As a teacher I picked up this book and thought it may have some new approaches to helping kids. It does alright. According to this book, children with ADD or ADHD have come from another planet to prepare us for the new age. There are many techniques that are known to work and help these children, but this book doesn't go that far. It scratches the surface of how to really help these children and deals more with this our kids are from another planet philosophy. Unless you are into believing this idea that our children are aliens, don't waste your money.

Apparently, however, there are many people who are open to this idea. After all, it is not any further out than the belief that angels and other entities that talk to special people know better than teachers and doctors what is right or wrong with our children and how best to treat them.

One can understand why many parents would not want their child to be labeled as ADD or ADHD. The label means your child is not perfect. Some may even take it to mean the child is "damaged." Specifically, it means your child's behavior is due to a neuro-biological condition. To some, this is the same as having a malfunctioning brain or a mental disorder. Understandably, emotions are going to run high here. Also understandably, there is going to be a lot of hype here, especially from the "alternative" treatment and "[natural](#) is good/drugs are bad" lobby. Their claims will be inflated rather than clarified by the mass media.

Furthermore, the mass media, attack lawyers, and talk show hosts are not known for their role in clarifying complicated scientific or medical matters (witness their handling of [Prozac](#), [silicone breast implants](#), [cell phones](#), [mental illness](#), [spirituality and health](#) and [environmental issues](#)). Why should we expect them to improve our understanding of ADD, ADHD and treatment with drugs like Ritalin ([methylphenidate](#))? It is more likely they will take the simpler and safer path: they'll jump on the bandwagon and attack the drug industry, psychiatrists, etc., who are [over-drugging our children](#). Nobody will oppose outrage at "abuse" of children. Fewer still will bother to investigate to see if you know what you are talking about.

The National Institute of Mental Health says that ADHD is the most commonly diagnosed childhood disorder. It affects some 3 to 5 percent of all school-age children. ([David Kaiser](#) says 10% of school-age children have been diagnosed with ADD/ADHD and that in some parts of the country 50% of the children are so diagnosed.) With so many children affected, it should be

easy to find cases of misdiagnosis, inappropriate treatment, adverse drug reaction, etc. Anecdotes of abuse, however, should not substitute for scientific studies or clinical observations by the professionals who treat these children on a daily basis. But we all know that an anecdote told on Oprah or Larry King Live by [Arianna Huffington](#) or Hilary Clinton is much more powerful than a controlled scientific study. Yet, those scientific studies must be done. Ritalin has been around since 1950, yet there are no long-term studies I am aware of that show it is safe, effective, or better than any alternative. The support for its prescription comes mostly from those in the trenches, the practitioners who treat the millions of children and adults with AD/HD. Support also comes from Ritalin's manufacturer, New Jersey-based Novartis Pharmaceuticals Corp., which says the drug "has been used safely and effectively in the treatment of millions of ADHD patients for over 40 years," attested by the results of 170 studies (Donohue). However, Novartis is hardly a disinterested party.

Just as many women with real medical problems were encouraged by [each other](#) and by their lawyers to blame their conditions on breast implants, even though the scientific evidence was heavily against the connection, so too there will be many who have problems or get into trouble who will blame Ritalin. First, I took Ritalin and then this happened. Ergo, [Ritalin caused it](#). Next stop, the talk show circuit. And no matter how many long-term studies are done that find nothing spectacularly wrong with Ritalin, there will always be the possibility that the next one will find something horrible. For example, "researchers at the University of California, Berkeley, say their study, tracking ADHD youths into adulthood, has found a connection between Ritalin use and later abuse of tobacco, cocaine and other stimulants (Donohue). Is the connection strong enough to warrant worry? Will further studies be unable to replicate this one? It won't matter to the general public and the enemies of "unnatural" pharmaceuticals. They will continue to promote such "natural" therapies as blue-green algae, even though there are both [pros](#) and [cons](#) to taking the stuff, and even though there are no long-term studies on what effects algae might have on a developing child's brain. They have [anecdotes](#) and that's enough for the media, the lawyers, the talk-show hosts, and their audiences. Anecdotes are sufficient to get the government involved as well. Republican Congressman Henry Hyde of Illinois is riding this one. Hyde has heard that kids are using Ritalin for recreation and has asked the General Accounting Office to investigate the illegal use of Ritalin in public schools (Donohue).

It seems that the hype and near-hysteria surrounding the use of Ritalin has contributed to an atmosphere that makes it possible for a book like *Indigo Children* to be taken seriously. The whole situation reminds me of a poster I once saw on a bulletin board at Sacramento City College. The poster was promoting the [Berkeley Psychic Institute](#) and declared in bold letters: YOU MAKE NOT BE PSYCHOTIC, YOU MAY BE PSYCHIC. Given the choice, who wouldn't rather believe they are [psychic](#) than that they are psychotic?

Likewise, given the choice, who wouldn't rather believe their children are special and chosen for some high mission rather than that they have a brain disorder?

further reading

- ["The Enemy is Within: The Choice to Medicate or Not in AD/HD"](#) by Ron Weinstein, Ph.D.

Donohue, Andrew. 'Quick fix' concerns over drug," *Sacramento Bee*, Dec. 23, 2000.

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Too Good to Be True



Inset Fuel Stabilizer

Some people wonder why aliens with more time than intelligence would come to earth to mutilate cattle or abduct people for genetic engineering projects. Others ponder more serious questions, such as, what kind of engineering do these creatures have? Do they use leaded or unleaded? Paper or plastic? What kind of gas mileage do they get? Does their spacecraft meet California's rigid emission standards? How did they get here on just one tank of fuel, and how do they keep hovering around for all these years without making a pit stop at Exxon or BP? There can only be one explanation: they use the Inset Fuel Stabilizer!

They must use the Inset Fuel Stabilizer (IFS) [no trademark because they were denied one on July 31, 1997]. There is no other explanation for it. What else could possibly explain how they continue to hover around the earth undiscovered, year after year, without making a single pit stop for gas? How else can we explain how they traveled billions of miles without any sign of polluting the atmosphere? The gas mileage the aliens get and the clean air their craft emits cannot possibly be explained by any of the known laws of physics, or chemistry, or biology, or California. The aliens are using the Inset Fuel Stabilizer.

This amazing device, according to its inventor, Bob Pearson, is able to align fuel and air molecules "in an energy field" so that they completely burn inside the Stabilizer. How does it do this? Bob has no idea, but it works. Of course it does. Only a perverted skeptic could mistrust such a claim. John Nacco of Inset Industries claims that the molecules that make up hydrocarbon fuels are surrounded by a positive charge. He claims this positive charge tends to attract other fuel molecules and that removing the positive charge causes the molecules to repel each other. This, he says, allows oxygen molecules to attach themselves to individual fuel molecules instead of having to bond to clusters of fuel molecules. The increased level of oxygen in the mix produces a more even burn, he claims, resulting in close to 100 percent combustion of the fuel molecules. Of course, Mr. Nacco does not explain why positively charged "molecules" would attract other positively charged molecules. Nor does he explain why a negatively charged molecule would repel rather than attract a positively charged one. Nor does he explain why oxygen molecules, which have no charge, would be attracted to negatively charged fuel "molecules". Given such a flawed account of chemical bonding, why should we believe him when he claims near 100 percent combustion of fuel molecules? Why should we believe him when he says that the longer the fuel stabilizer is in use, the lower the emissions readings become? Why should we believe another Inset person named Marshall who said he installed a stabilizer in his wife's 1990 Honda and within 11 days, hydrocarbon counts dropped from 145 parts per million to 9 parts per million and carbon

monoxide emissions were eliminated completely (*Chicago Tribune*, May 3, 1994)? We can believe Marshall, but what does his data mean? Very little, since we do not know if he did anything else on his wife's car or if he had it tested on the same equipment or if the car had the same fuel in it for both tests.

What is the Stabilizer, then? This much we can say: it is a 7-inch long piece of stainless steel. It has been described as looking like a slim beer can with a bolt-like valve on each end. That's it. There is no more. It is just a stainless steel tube that is designed to be inserted in your vehicle's fuel line. How does a stainless steel pipe align molecules or change their charges? No one knows. How does it keep them aligned once they leave the pipe? No one knows. Why would their alignment or charge have anything to do with whether they would burn or emit polluting particulates? No one knows. Trust Bob, John, and Marshall though, because they say it works!

Ray Hall read about the Inset Fuel Stabilizer in his local newspaper in Naperville, Illinois. The city of Naperville had shelled out \$1,500 each for Stabilizers for the city's maintenance and police vehicles. Mr. Hall has some background in chemistry and physics. The claims reported by local journalist Susan Trudeau did not have the ring of verisimilitude, so Mr. Hall contacted her. She passed the buck to a Mr. Morris of Inset Industries. Morris told Hall that even the inventor did not know how it works, but the results speak for themselves. The results, unfortunately, were all in the form of anecdotes and uncontrolled studies of negligible scientific merit.

Mr. Morris told Hall that the Stabilizer was not patented because the workings were a trade secret and they didn't want to reveal this information in a patent application. This seems patently absurd, not to patent such a revolutionary device. Morris did not appreciate having the claims of Inset challenged and "condemned me for my negative attitude," says Hall. Morris said that Inset was only trying to save the world from pollution and they had many satisfied customers, including police departments. Maybe these were the same police departments who were conned into buying the [Quadro Tracker](#). Mr. Hall was disappointed that the reporter hadn't checked out Morris's claims, including the claim that an endorsement from the Environmental Protection Agency was forthcoming in the near future. Hall's own investigation revealed that the EPA does not endorse products.

I must admit that I was very skeptical of Mr. Hall's claims. I checked out the WWW home page of Inset [www.insetfuelstabilizer.com/, which is now defunct] and, sure enough, it claimed that this tube can align molecules and thereby save you money on gasoline and make your engine run virtually pollution free. There were [testimonials](#) from cops, garbage truck drivers and others, as to the wonders of the Stabilizer. There was also a table which one could use to calculate how much money you can expect to save on gas by using the Stabilizer. There was another unskeptical newspaper article for perusal. What you did not find, though, was any evidence that the Stabilizer had been tested under anything that might vaguely resemble a controlled study. A recent visit to the Inset homepage revealed that the mileage chart is no longer there. Inset has since stopped touting the fuel economy/gasoline savings angle. Since such companies do not usually voluntarily remove such claims, it is likely they did so as a result of being taken to court. In any case, the main angle now is emission control. Despite all the hype about how it increases gas mileage and

power and reduces emissions, the only thing guaranteed by Inset is that "the Fuel Stabilizer will reduce air pollution emissions to the level required by the Federal Clean Air Act and State emissions standards." For most cars, this guarantee means nothing, since they already are at that level or can be made so with a minor tune up. The Inset sells for about \$1,600. For those cars which are in such bad shape that they can't meet these standards, the cost of the Inset would be more than the car is worth.

The main evidence presented by Inset Industries for their product is in the form of testimonials and some indecipherable charts. It is easy to dismiss testimonials by company executives, but how can we dismiss the testimonial of an unnamed municipality in Texas which has tested some 340 diesel vehicles and reports that "the opacity on 340 diesel powered vehicles met State of Texas pollution standards while fuel economy increased approximately 19%"? Well, for one thing, fuel economy is not guaranteed when you buy the product. Secondly, there are no established emission standards for diesel engines, according to an unnamed supervisor involved in the purchase and testing of the IFS. The municipality is unnamed, though why it should be is puzzling. The unnamed source is also quoted as saying: "We had 97 to 99 percent opacity of particulate matter from our diesels, which was causing black smoke. I was getting more than 30 calls per week from residents complaining about the smoke coming from our garbage trucks. With the stabilizer installed, particulate matter dropped to 25 percent. When we shifted to low sulfur diesel, particulate matter dropped to 10 to 12 percent. We're not getting any more complaints about black smoke from our trucks." We have the word of unnamed source, probably an interested party, since he may have been responsible for asking the municipality to buy 340 of these devices at a total cost of something like half a million dollars. He gives us no report or indication that there is any report, no idea of how these tests were conducted. We're to take his word that "particulate matter" dropped significantly. This is not reliable evidence; it's hearsay. We have no idea how he got his numbers. We don't know whether the reduction in smoke and the decrease of complaints was due to switching to the stabilizer or to the low sulfur fuel, or to some other factor. What looks like a significant amount of supportive evidence vaporizes under analysis. This is just the testimony of an unnamed source in an unnamed community making undocumented claims.

But what about the race car driver who swears by the IFS. In an article in *Trackside* magazine, NASCAR racer Dean Gullik reportedly felt that his race car had more power with the IFS. A test of horsepower with and without the IFS revealed there was no difference. Rather than admit that his perception of more power was wrong, Gullik came to agree with John Nacco of Inset who said that the increased power wasn't from increased horsepower but due to a change in "the torque curve." In any case, NASCAR officials let Gullik use the IFS because it had no measurable effect on the car's power. They consider it a "pollution control device". What is the evidence for that? A test was performed by Al Connors of Alan and Son Car Care Center (NJ State License # 06227) on Hwy. 202 in Branchburg, N.J. With the engine idling normally on 110 octane leaded racing fuel, readings taken from the left side exhaust showed the following emissions levels:

CO = .04%
HC = 62 ppm (parts per million)
C02 = .0%

Unfortunately, no comparable data were given for the car without the device, for typical emission readings on other race cars with similar engines and using the same gasoline. And, we have no idea of how accurate the testing equipment was. Inset claims that "Race cars with this type of engine and fuel typically produce hydrocarbon readings of around 1000 PPM and carbon monoxide readings in the 6.0% range. This race car, stripped of every pollution control device except the Fuel Stabilizer, is the first one with emissions significantly lower than the New Jersey Inspection standards for pollutants. New Jersey standards are: Hydrocarbons below 220 PPM and Carbon Monoxide below 1.2%." If this data is accurate, then why is the Inset guarantee so paltry? The only thing that Inset guarantees with its product is that your car will meet these New Jersey standards with the IFS. You would think they would be willing to guarantee something as dramatic as their testimonials.

Relying on peoples' perceptions of things is not very scientific. Relying on testimonials by interested parties is unreasonable, even if the testimonial is couched in terms of scientific data. Tests of single vehicles or small numbers of vehicles are notoriously unreliable. Faulty equipment or faulty use of the equipment becomes a significant problem. Finally, there is a good reason for doing controlled experiments. They reduce the probability that other factors are actually responsible for the data. In the case of testing a device for pollution control several things must be controlled for:

1. The testing equipment itself must be thoroughly tested. Vehicles without the device must be tested several times, using the same kind of gasoline with the tank similarly filled, to see how much variation occurs. Temperature control is essential for this test, since temperature may affect the performance of the equipment and the vehicle, especially if the test is done at a time of year and in a location where the morning temperature may differ significantly from the afternoon temperature.

2. Once the variance of the equipment is established, controls must be made over the fuel and maintenance of the vehicles.

a) The same fuel from the same batch must be used throughout, to insure that any difference in data is not due to differences in fuel

b) No changes in the auto equipment other than the device being tested can be allowed: no changes in spark plugs, no adjustments of the carburetor, no cleaning of the fuel injector system, no adjustment to the timing, etc. Everything must remain the same in the vehicles except for what is being tested.

c) Vehicles must be tested under the same conditions: thus if vehicles are to be tested months after the first test, making it unlikely that the later tests will be able to use fuel from the same batch as the first test, there must a comparative test made of both the equipment and vehicles without the device at the beginning test and the later test. A baseline of variance must be established.

Testing vehicles months later introduces special control problems. Temperatures under which testing is done may differ radically in summer and winter in some places. Making sure that the drivers of the vehicles do not have any work done on the car in the interval is a logistical problem of varying magnitude. In a municipal fleet, for example, no maintenance can be allowed on vehicles between tests: no oil changes, no tune-ups, etc.

In reading the testimonials provided by Inset, there does not seem to be anything like a controlled experiment they can report. The only controlled experiment known to be done on their device proved negative and they reject the results. That is understandable, but why should we agree with Inset rather than the New Jersey Institute of Technology who did a controlled experiment on the Inset and found it to be of no value?

The New Jersey Institute of Technology in consultation with Stevens Institute tested the Stabilizer at the request of State Senator Robert Littell, who reported that he was getting great results with the device. Their tests showed that the device made no difference in gas mileage or emissions. The report was published in the December 1995 issue of the trade journal *Fleet Executive* magazine. The report was signed by NJIT Professor and Vice President of Research and Graduate Studies Dr. Robert Pfeffer; NJIT Professor Dr. John Droughton; Stevens Institute of Technology Professor and Director of the Center of Environmental Engineering Dr. George Korfiatis; and NJIT Professor of Engineering and Science Dr. Richard S. Magee. Senator Littell said he was "perplexed by the findings of the report" and refused to accept the findings. So did Inset and they filed a lawsuit against NJIT. A large scale test of the Inset and four other air pollution control products was conducted by researchers at the Armament Systems Process Division of the U.S. Army's laboratories at Picatinny Arsenal for the New Jersey Department of Transportation, but the report was not released because of major problems with the testing equipment. There has been an ongoing controversy in New Jersey regarding the reliability of the equipment they use to test emissions. In August 1996, the state of New Jersey charged Inset with violating the Consumer Fraud Act and state securities laws. But Inset continues to flourish on the Internet.

I asked a friend of mine who used to own an auto repair shop if he had ever heard of the Stabilizer. He said that he had but it was called the *Vitalizer* when he was in business. He thinks it might be the same thing being marketed under another name. He even suggested the unthinkable: there might be fraud involved here! I couldn't believe my ears. Fraud on the internet! What a concept! Anyway, I asked him: why, if this were fraud, would anyone be so blatant about it? Weren't they afraid of being caught and severely punished by the very law enforcement agencies who were giving testimonials for them? Not very likely, he said. By the time law enforcement catches up with these kinds of frauds, says my friend, they have moved on, changed their name, and are doing business as usual somewhere else with the same product but a new name. It happens all the time in the [fuel and oil additive industry](#), he said. So, it wouldn't surprise him if it happened in the steel tube/fuel efficiency industry, too.

Well, I was shocked. I had been getting a lot of mail from people who were feeling sorry for me because I was such a negative person. I had vowed to be more positive

just to make them feel better. So I looked for the silver lining in the Inset Stabilizer story and thought I had found it in the alien fuel efficiency angle. Now, I have to rethink my hypothesis. But wait. Maybe I can still find something positive here. I can say that if there are aliens hovering around earth looking for some good beef to mutilate or some tasty humans to experiment on, then they are probably using the Inset Fuel Stabilizer. And maybe Bob Pearson doesn't have to worry about a patent because he has one on his home planet.

I don't know if they have an environmental protection agency on Bob's planet, but here on earth [the EPA did tests on the Inset Fuel Stabilizer](#) and found that it neither reduces vehicle emissions nor increase fuel mileage. What a shock!

Postscript: For those of you who balk at the \$1,600 price tag on the Inset Fuel Stabilizer, don't fret. For a mere \$239.95, plus tax and shipping and handling, you can get the [Mileage Wizard™](#). This device, we are told on the authority of those who are selling it, is a gadget which utilizes "cutting edge technology." According to its promoters, "the gasoline is introduced into the thermal magnetic vaporization chamber creating an almost vapor state prior to entering the fuel injectors, creating greater fuel efficiency." If you do not trust their data on fuel efficiency you can call the "Energy Efficiency and Renewable Energy Clearinghouse at 1-800-363-3732." This offer is exclusively made directly to the public rather than to car manufacturers because, we are told, those big bad greedy corporate types would put owning this device "out of the reach of the average person." It is much better to allow greedy average people rip off each other in an [MLM scheme](#), where the opportunity to make over \$80,000 a month is made available to each and every one of us by the kind founders of the Mileage Wizard™. Or so they say.

[Hiclone](#) promises fuel savings of up to 20%, power increase of up to 15%, and hydro carbon emission reductions of up to 30% with prices from \$160-\$215 (Australian). They'll even sell you something called Fuelmax which "is a magnetic frequency resonator which clips onto the fuel line and 'fractures' the passing fuel, allowing it to mix with oxygen more readily and thus burn more efficiently." This should keep you laughing for up to ten minutes.

Finally, the [Fuel Saver](#) is guaranteed to increase your fuel mileage by up to 27%. It costs only \$89.95 and is available only via the Internet. The device is said to consist of "Neodymium Super inductors that generate a frequency resonance between its two faces." The Fuel Saver "Operates on the principle of resonance, utilizing a double chamber frequency with phased frequency modulation." This device allegedly has three patents. Each of them is for some sort of magnet. So, what you are buying is a magnet that clamps over your fuel line. According to the seller, the magnet will fracture hydrocarbon chains, "molecules that cluster and grow causing molecules to be trapped from air during the combustion." This makes more oxygen available and the fuel burns cleaner, we are told. Furthermore, the Fuel Saver will remove carbon and varnish deposits from your engine. If you are wondering why auto manufacturers don't include these handy devices on their new cars, the Fuel Saver people have the answer. "Car manufactures are...in the business of selling cars, they really focus more on design and safety features, rather than improving fuel mileage."* What

seems clear is that the Fuel Saver people are in the business of selling Fuel Savers and focus more on marketing gobbledygook than truthful advertising.

See related entries on [multi-level marketing](#) and [Slick 50](#).

further reading

[reader comments](#)

- [Federal Trade Commission on Gas-Saving Products](#)
- [EPA full report on the Inset device](#) (pdf format)
- [EPA tips on increasing gas mileage](#)
- [EPA on fuel economy and pollution](#)
- [Tom and Ray: Cartalk](#)

The Office of Mobile Sources is the national center for research and policy on air pollution from highway and off-highway motor vehicles and equipment. Of all their advice on how to reduce auto emissions, using the Inset Fuel Stabilizer is not one of them. You can write to them at the EPA National Vehicle and Fuel Emissions Laboratory, 2565 Plymouth Road, Ann Arbor, MI 48105. Their phone number is (734) 214-4925 (Eastern Time Zone).

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[The Skeptic's Refuge](#)

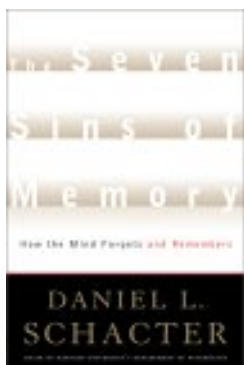
[More Too Good to Be True Opportunities](#)





SkepDic.com

[For Air Crash
Detectives, Seeing
Isn't Believing By
MATTHEW L.
WALD](#)



[Schacter, Daniel L.
The Seven Sins of
Memory : How the
Mind Forgets and
Remembers
\(Houghton Mifflin
Co., 2001\).](#)

memory

Memory is the retention of, and ability to recall, information, personal experiences, and procedures (skills and habits).

There is no universally agreed upon model of the [mind/brain](#), and no universally agreed upon model of how memory works. Nevertheless, a good model for how memory works must be consistent with the subjective nature of consciousness and with what is known from scientific studies ([Schacter 1996](#)). Subjectivity in remembering involves at least three important factors:

1. **Memories are constructions made in accordance with present needs, desires, influences, etc.**
2. **Memories are often accompanied by feelings and emotions.**
3. **Memory usually involves awareness of the memory** (Schacter 1996).

Two models of thinking which are popular with [materialists](#) are the behaviorist model (thinking is a set of behaviors) and that of cognitive psychology (the brain is like a computer). Neither can account for the subjective and present-need basis of memory (Schacter 1996). The Freudian model posits an area of the [unconscious](#) where memories of traumatic experiences are stored. Though unconscious of them, such memories are claimed to be significant causal factors in shaping conscious thought and behavior. This model is not consistent with what is known about the memory of traumatic experiences. There is a great deal of supportive evidence for the claim that the more traumatic an experience, the *more likely* one is to remember it. Novel visual images, which would frequently accompany traumas, stimulate the hippocampus and left inferior prefrontal cavity and generally become part of long-term memory.

Current studies in neuroscience strongly support the notion that a memory is a set of encoded neural connections. Encoding can take place in several parts of the brain. Thus, neural connections are likely to go across various parts of the brain. The stronger the connections, the stronger the memory. Recollection of an event can occur by a stimulus to any of the parts of the brain where a neural connection for the memory occurs. If part of the brain is damaged, access to any neural data that was there is lost. On the other hand, if the brain is healthy and a person is fully conscious when experiencing some trauma, the likelihood that they will forget the event is nearly zero, unless either they are very young or they experience a brain injury.

Furthermore, the Freudian model often assumes that childhood sexual abuse is usually [unconsciously repressed](#) and that psychological problems in adulthood are caused by the unconscious memory of childhood abuse. There is, however, no body of scientific evidence to support either that such abuse is *unconsciously* repressed or that [these experiences are significant causal factors of adult psychological problems](#).

Finally, the model of memory that sees the brain recording everything one experiences is a model that contradicts what is known about how memories are constructed. Even so, in a survey of psychologists by Loftus and Loftus, 84% said they believe every experience is permanently stored in the mind (Schacter 1996, 76).

a popular model of memory

One of the most popular models of memory sees memory as a present act of consciousness, reconstructive of the past, stimulated by an analogue of an engram called the "retrieval cue." The engram is the neural network representing fragments of past experiences which have been encoded. The evidence is strong that there are distinct types and elements of memory which involve different parts of the brain, e.g., the hippocampus and ongoing incidents of day-to-day living (*short-term* or *working* memory); the amygdala and emotional memories (Schacter 1996, 213). Memories might better be thought of as a collage or a jigsaw puzzle than as "tape recordings," "pictures" or "video clips" stored as wholes. On this model, perceptual or conscious experience does not record all sense data experienced. Most sense data is not stored at all. What is stored are bits and fragments of experience which are encoded in engrams. Exactly how they are encoded is not completely understood.

This popular model of memory rejects the idea that individual memories are stored in distinct locations in the brain. That idea seems to have become solidified by Wilder Graves Penfield's experiments done in the 1950's. He placed electrodes on the surface of the exposed temporal lobes of patients and was able to elicit "memories" in 40 of 520 patients. Many psychologists (and lay people) refer to these experiments as proof that memories are just waiting for the right stimulus to be evoked. Schacter points out that the Penfield experiments are not very good evidence for this belief. Not only could Penfield only elicit "memories" in about 1 out of every 8 patients, he did not provide support for the claim that what was elicited was actually a memory and not a hallucination, fantasy or [confabulation](#).

forgetting

On the model described in the previous two paragraphs, forgetting is due to either

1. **weak encoding (why we forget most things, including our nightly dreams);**
2. **lack of a retrieval cue (we seem to need something to stimulate memory);**
3. **time and the replacement in the neural network by later experiences (how many experiences do you remember from many years ago?);**
4. **repetitive experiences (you'll remember the one special meal you had at a special restaurant, but you won't remember what you had for lunch a year ago Tuesday), or**
5. **a drive to keep us sane. (Imagine the brain overload that would occur if we were to never forget anything, the stated goal of L. Ron Hubbard's [dianetics](#). His followers should read Jorge Luis Borges "Funes, the Memorious," a story about such a being.)**

The chances of remembering something improve by "consolidation," which creates strong encoding. Thinking and talking about an experience enhance the chances of remembering it. One of the better known techniques of remembering involves the process of [association](#).

source memory

Many people have vivid and substantially accurate memories of events which are erroneous in one key aspect: the *source* of the memory. For example:

In the 1980 presidential campaign, Ronald Reagan repeatedly told a heartbreaking story of a World War II bomber pilot who ordered his crew to bail out after his plane had been seriously damaged by an enemy hit. His young belly gunner was wounded so seriously that he was unable to evacuate the bomber. Reagan could barely hold back his tears as he uttered the pilot's heroic response: "Never mind. We'll ride it down together." ...this story was an almost exact duplicate of a scene in the 1944 film "A Wing and a Prayer." Reagan had apparently retained the facts but forgotten their source (Schacter 1996, 287).

An even more dramatic case of *source amnesia* (also called *memory misattribution*) is that of the woman who accused memory expert Dr. Donald Thompson of having raped her. Thompson was doing a live interview for a television program just before the rape occurred. The woman had seen the program and "apparently confused her memory of him from the television screen with her memory of the rapist" (Schacter 1996, 114). Studies by Marcia Johnson et al. have shown that the ability to distinguish memory from imagination depends on the recall of source information.

Tom Kessinger, a mechanic at Elliott's Body Shop in Junction City, Kansas, gave a detailed description of two men he said had rented a Ryder truck like the one used in the Oklahoma City bombing of the Alfred P. Murrah Federal Building. One looked just like Timothy McVeigh. The other wore a baseball cap and a T-shirt, and had a tattoo above the elbow on his left arm. That was Todd Bunting, who had rented a truck the *day before* McVeigh. Kessinger mixed the two memories but was absolutely certain the two came in together.

Jean Piaget, the great child psychologist, claimed that his earliest memory was of nearly being kidnapped at the age of two. He remembered details such as sitting in his baby carriage, watching the nurse defend herself against the kidnapper, scratches on the nurse's face, and a police officer with a short cloak and a white baton chasing the kidnapper away. The story was reinforced by the nurse, the family, and others who had heard the story. Piaget was convinced that he remembered the event. However, it never happened. Thirteen years after the alleged kidnapping attempt, Piaget's former nurse wrote to his parents to confess that she had made up the entire story. Piaget later wrote that "I therefore must have heard, as a child, the account of this story...and projected it into the past in the form of a visual memory, which was a memory of a memory, but false" ([Tavris](#)).

amnesia and implicit memory

Though all forgetting is a type of amnesia, we usually reserve that term for forgetting that is caused by the effects of drugs/alcohol, brain injuries, or physical or psychological traumas. One of the more interesting types of amnesia is what psychiatrists call the *fugue* state. An otherwise healthy person travels a good distance from his home, and when found has no memory of how he got there or who he is. The fugue state is usually attributed to recent emotional trauma. It is rare and is typically neither permanent nor recurring.

Limited amnesia, however, is quite common. Limited amnesia occurs in people who suffer a severe physical or psychological trauma, such as a concussion or being rendered unconscious. Football players who suffer concussions, and accident victims who are rendered unconscious, typically do not remember what happened immediately before the event. The scientific evidence indicates, however, that some sort of *implicit* memory may exist, which can be troubling to one whose amnesia is due to having been rendered unconscious by an assailant. Schacter notes the case of a rape victim who could not remember the rape, which took place on a brick pathway. The words 'brick' and 'path' kept popping into her mind, but she did not connect them to the rape. She became very upset when taken back to the scene of the rape, though she didn't remember what had happened there (Schacter 1996, 232).

Implicit memory is memory without awareness. It differs substantially from [repressed memory](#). Implicit memories are not necessarily repressed, nor are

they necessarily the result of trauma. They are weakly encoded memories which can affect conscious thought and behavior. Retrieval cues do not bring about a complete memory of some events because most of the event was not encoded.

Daniel Schacter and Endel Tulving introduced the terms 'implicit memory' and 'explicit memory' in their attempt to find a common language for those who believe there are several distinct memory systems and those who maintain there is only one such system. Schacter writes: "The nonconscious world of implicit memory revealed by cognitive neuroscience differs markedly from the Freudian unconscious. In Freud's vision, unconscious memories are dynamic entities embroiled in a fight against the forces of repression; they result from special experiences that relate to our deepest conflicts and desires. . . .[I]mplicit memories . . . arise as a natural consequence of such everyday activities as perceiving, understanding, and acting" (Schacter, 1996, 190-191).

Most lost memories are lost because they were never elaborately encoded. Perception is mostly a filtering and defragmenting process. Our interests and needs affect perception, but most of what is available to us as potential sense data will never be processed. And most of what is processed will be forgotten. Amnesia is not rare, but is the standard condition of the human species. We do not forget simply to avoid being reminded of unpleasant things. We forget either because we did not perceive closely in the first place or we did not encode the experience either in the parietal lobes of the cortical surface (for *short-term* or *working* memory) or in the prefrontal lobe (for *long-term* memory).

Long-term memory requires elaborative encoding in the inner part of the temporal lobes. If the left inferior prefrontal lobe is damaged or undeveloped, there will be grave difficulty with elaborative encoding. This area of the brain is undeveloped in very young children (under the age of three). Hence, it is very unlikely that any story of having a memory of life in the cradle or in the womb is accurate. The brains of infants and very young children are capable of storing fragmented memories, however. Such memories cannot be explicit or deeply encoded, but they can nevertheless have influence. In fact, there are numerous situations--such as [cryptomnesia](#)-- where memory can be manifested without awareness of remembering.

semantic, procedural, and episodic memory

Memory researchers distinguish several types of memory systems. *Semantic* memory contains conceptual and factual knowledge. *Procedural* memory allows us to learn new skills and acquire habits. *Episodic* memory allows us to recall personal incidents that uniquely define our lives (Schacter, 1996, 17). Another important distinction is that between *field* and *observer* memory. Field memories are those where one sees oneself in the scene. Observer

memories are those seen through one's own eyes. The fact that many memories are *field* memories is evidence, as Freud noted, of the reconstructive nature of memories (Schacter, 1996, 21).

accuracy of memory

How accurate and reliable is memory? Studies on memory have shown that we often construct our memories after the fact, that we are susceptible to suggestions from others that help us fill in the gaps in our memories. That is why, for example, a police officer investigating a crime should not show a picture of a single individual to a victim and ask if the victim recognizes the assailant. If the victim is then presented with a line-up and picks out the individual whose picture the victim had been shown, there is no way of knowing whether the victim is remembering the assailant or the picture.

Another interesting fact about memory is that studies have shown that there is no significant correlation between the subjective *feeling of certainty* a person has about a memory and the memory being *accurate*. Also, contrary to what many people believe, [hypnosis](#) does not aid memory's accuracy. Because subjects are extremely suggestible while hypnotized, most states do not allow as evidence in a court of law testimony made while under hypnosis (Loftus, 1979).

Furthermore, it is possible to create [false memories](#) in people's minds by suggestion, even false memories of [previous lives](#). Memory is so malleable that we should be very cautious in claiming certainty about any given memory without corroborative evidence.

How does memory work?

We do not know exactly how memory works, though there are many explanatory models for memory. Some of these models identify memory with brain functions. On this model, for example, memory diminishes with age because neurons die off as we get older. There are only three ways to overcome this fact of nature: 1. figure out a way to stop neurons from dying; 2. figure out a way to stimulate the growth of new neurons; or 3. figure out a way to get the remaining neurons to function more efficiently and pick up the slack. So far, it looks like options 2 and 3 are the most promising. Some positive results have been reported regarding the stimulation of the growth of new brain cells by fetal implants. Fred Gage of [The Salk Institute](#) has reported that recent research in neurogenesis is encouraging. They have observed the growth of neurons in the dentate gyrus, a portion of the hippocampus (which controls learning and short term memory), in mice that were placed in a stimulating environment. Gage has also grafted immature cells from the spinal cord to the hippocampus and found that they produced new neuronal cells. There is also growing support for the notion that exercising the body and the brain tend to preserve neurons. "Use it or lose it" turns out to be

literally true for brain cells.

Neurological research has also produced some success getting neurons to work better with *ampakines*, chemical compounds sometimes called "memory drugs." The first tests with humans showed excellent results, but the samples were too small to justify drawing any conclusion except that more studies are needed.

For those who think that memory is a function of some non-physical reality, such results should cause some reflection, though I doubt that a non-physical model of the mind will lead to any significant research which will benefit humankind. For those who posit that memory is a brain function, there is not only a direction for research to follow, but hope of success for discovering something truly useful.

See related entries on [Bridie Murphy](#), [dianetics](#), [hypnosis](#), [false memory](#), [mind](#), [reincarnation](#), [repressed memory](#), and [repressed memory therapy](#).

further reading

- [Instant Replay - Building Long-term Memory](#)
- [Review](#) of Daniel Schacter's *Searching for Memory*
- [Streetmap of the Mind](#)
- [Neurosciences on the Internet](#)

[Ashcraft, Mark H. *Human Memory and Cognition* \(Addison-Wesley Pub Co., 1994\).](#)

[Baddeley, Alan D. *Human Memory: Theory and Practice* \(Allyn & Bacon, 1998\).](#)

[Baker, Robert A. *Hidden Memories: Voices and Visions From Within* \(Buffalo, N.Y. : Prometheus Books, 1996\).](#)

[Kandel, Eric R. & James H. Schwartz, eds. *Principles of Neural Science* 4th ed. \(McGraw-Hill Professional Publishing, 2000\).](#)

[Loftus, Elizabeth F. *Memory, Surprising New Insights Into How We Remember and Why We Forget* \(Reading, Mass.: Addison-Wesley Pub. Co., 1980\).](#)

[Loftus, Elizabeth F. *Eyewitness Testimony* \(Cambridge, Mass.: Harvard University Press, 1979\).](#)

[Loftus, Elizabeth and Katherine Ketcham. *Witness for the Defense : The Accused, the Eyewitness, and the Expert Who Puts Memory on Trial* \(New York: St. Martin's Press, 1991\).](#)

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[Schacter, Daniel L., editor, *Memory Distortion: How Minds, Brains, and Societies Reconstruct the Past* \(harvard University Press, 1997\).](#)

[Schacter, Daniel L. *Searching for Memory - the brain, the mind, and the past* \(New York: Basic Books, 1996\).](#)

[Schacter, Daniel L. *The Seven Sins of Memory : How the Mind Forgets and Remembers* \(Houghton Mifflin Co., 2001\).](#)

Tavris, Carol. "Hysteria and the incest-survivor machine," *Sacramento Bee*, Forum section, January 17, 1993.

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bunyips

Bunyips are legendary spirits or creatures of the Australian Aborigine. Bunyips haunt rivers, swamps, creeks and billabongs. Their main goal in life is to cause nocturnal terror by eating people or animals in their vicinity. They are renowned for their terrifying bellowing cries in the night and have been known to frighten Aborigines to the point where they would not approach any water source where a bunyip might be waiting to devour them.



There are many reports by white settlers who have witnessed bunyips, so [cryptozoologists](#) may still be searching for these creatures. They may have some difficulty in locating their prey, though, since Aboriginal tribes do not all give the same visual description of the creature. Some say the bunyip looks like a huge snake with a beard and a mane; others say it looks like a huge furry half-human beast with a long neck and a head like a bird. However, most Australians now consider the existence of the bunyip to be mythical. Some scientists believe the bunyip was a real animal, the *diprotodon*, extinct for some 20,000 years, which terrified the earliest settlers of Australia.

According to Oodgeroo Noonuccal (Kath Walker) in *Stradbroke Dreamtime*, the bunyip is an evil or punishing spirit from the Aboriginal Dreamtime. Today the bunyip mainly appears in [Australian literature for children](#) and makes an occasional appearance in television commercials.

further reading

- ["Ethereal or Earthly? Friend or Foe?: Bunyips in Australian Children's Literature"](#) from The State Library of Victoria, Melbourne, Australia
- [Bunyips, The Australian Sprite](#) by Davy Russell

Noonuccal, Oodgeroo, *Stradbroke dreamtime* (Pymble, N.S.W. : Angus & Robertson, 1972).

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reader comments:

cabala

03 Dec 2000

I just wanted to respond to the way you described cabbalism. Cabbalism isn't just about trying to read a hidden meaning behind every word and every letter in the Bible; actually it's a whole philosophical system that tries to explain the universe, the world and our own minds in an actually very reasonable, scientific manner. Just look for the [Cabbalistic Tree of Life](#) w/ the Ten Emanations of God and you'll see that it's not as much bilge and balderdash as you make it sound like on your web page. In fact, the cabbalistic belief is the only one that doesn't try to credit God with JUST positive traits, but also 'negative' ones like destruction and death. Since destruction is a necessary part of creation (since if only things were being created and nothing ever disappeared, this would be a problem :) it is also a necessary part of God. I'm not saying God causes wars, or allows people to starve. WE do these things. WE start wars. WE allow people in Africa to starve through a mad hierarchical system that puts 20 % of the world population in ideal circumstances while the rest of humankind rots. And of course God cannot REALLY interfere because we have free will. Things came to be this way because humans wanted it. Not really all of it, but they can't see how it should be otherwise. God can't just set the world to rights because he's SO GOOD, or something. It is up to US. We can only ask for help every now and then, and guidance, and wisdom. Anyway... perhaps for all you sceptics out there, it's a good idea to read [Daniel Quinn's](#) books. He has a very refreshing view on the world as it is now and the ways people are trying to delude themselves. Really, give it a try. If you don't like his books after all, blame me.

Jenneke

reply: Well, I'd say these things are open to a different interpretation.

12 May 1998

For a professor, I find your misunderstanding of the Kabbalah and its principles to be, at the least, a manifestation of ignorance, and at the most, a blatant disrespect for both Kabbalists and your students by teaching such misinformation.

If you had bothered to study the Notes on the Kabbalah by Colin Low, to which your page has a link, perhaps you would not have made such statements such as, " The purpose of the cabala is apparently to read God's

mind and thereby become one with the divine," or "This transcendental quest represents to the atheist a rejection of the earthly realm of facts, suffering, uncertainty and impotence in favor of a fantasy realm of the imagination and a sharing in eternal bliss and omnipotence."

The Kabbalah does not attempt to understand the mind of God, if God in fact has a "mind". Please see the concept of En Soph-the unknowable God. The Kabbalah also does not reject the earthly realm of facts and suffering. Please see the section on Malkuth-the sephira dealing with the earthly, physical world. I have no intention of trying to influence your beliefs; if rationality and atheism are your gods, so be it. But out of respect for what some people find sacred, and out of respect for your students who are undoubtedly influenced by what you tell them, please do not spread this misinformation.

Mary Jarrett

reply: With all due respect, the Cabala is an attempt to understand the mind of God, even if you do not use those words, even if you maintain that God is ineffable.

As Colin Low writes:

If Kabbalah means "tradition", then the core of the tradition was the attempt to penetrate the inner meaning of the Bible, which was taken to be the literal (but heavily veiled) word of God. Because the Word was veiled, special techniques were developed to elucidate the true meaning....Kabbalistic theosophy has been deeply influenced by these attempts to find a deep meaning in the Bible.

The Bible is understood to be the word of God. The word of God is understood to express the will of God. The will of God is an aspect of the mind of God.

Furthermore, whatever recognition the mystic makes of human suffering, it is always only a means to the true goal of existence, which is union with God, if not literally, then figuratively as existing in the presence of God. In fact, all actions in the physical world, including the scientific study of nature, are, from the mystic's viewpoint, of value only as a means to getting closer to God the Creator through imminent Creation.



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The Cardiff Giant

The Cardiff Giant is a fake fossil of an antediluvian giant some ten feet high with 21 inch feet. The "fossil" is actually a carved slab of gypsum, sculpted a year or two before its "discovery" in 1869. The fake was the idea of George Hull, a cigar manufacturer and atheist, and a distant relation Stubb Newell, who owned the farm in Cardiff, New York, where the hoax was perpetrated. Experts almost immediately suspected the "fossil" was not a fossil, but their warnings went unheeded. Scientists declaring the fake a fake did not deter visitors, who shelled out 50 cents each to see the "Goliath." Rumor had it that the "fossil" was proof of the Bible's accuracy about giants such as Goliath. The curious came in the hundreds per day to the remote upstate New York farm for a view of Biblical history.



Within a week of its "discovery," Newell sold three-fourths of his interest in the Giant to a syndicate in Syracuse, New York, for \$30,000. Business was so good that P.T. Barnum wanted to get in on the action. He offered to rent the giant for just three months to take on the road with his circus, but Newell and the syndicate wouldn't deal. So Barnum had a duplicate made and charged people to see a fake of the fake. It is said that when both were displayed in New York City at the same time, Barnum's fake of the fake outdrew the real fake (Feder, 36).

Kenneth Feder, in his book on myths and frauds in archaeology, sees the Cardiff Giant episode as a familiar one:

Trained observers such as professional scientists had viewed the Giant and pronounced it be an impossibility, a statue, a clumsy fraud, and just plain silly. Such objective, rational, logical, and scientific conclusions, however, had little impact. A chord had been struck in the hearts and minds of many otherwise levelheaded people, and little could dissuade them from believing in the truth of the Giant. Their acceptance of the validity of the giant was based on their desire...to believe it (Feder, 37).

In short, often the skepticism toward scientific experts is not rooted in the desire to believe only what the evidence supports, but in a desire to believe what one wants to believe regardless of the evidence.

The "fossil" is now on display at the [Farmer's Museum](#) in Cooperstown, New

York, where it is labeled "America's Greatest Hoax."

further reading

- [The Great Cardiff Giant](#) by Andrew White
- [The Museum of Hoaxes](#)

[Feder, Kenneth L. *Frauds, Mysteries and Myths*, 3rd ed. \(Mountain View, California: Mayfield Publishing Co., 1998\).](#)

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 [cabala](#)

[the "Carlos" hoax](#) 

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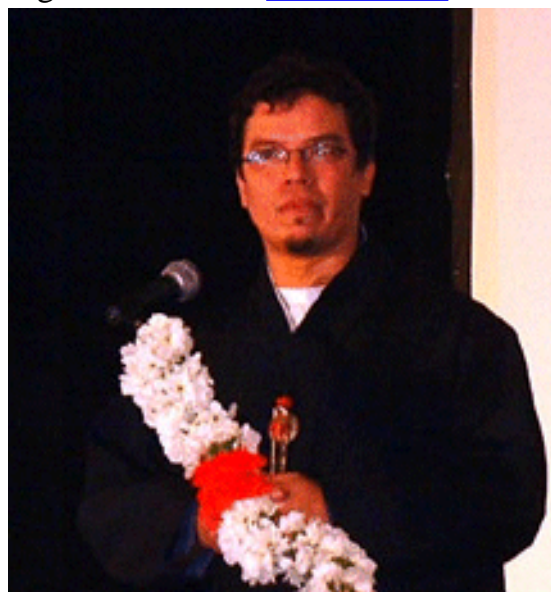
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"Carlos"

"We like to be deceived." - Blaise Pascal

"Carlos" was the name of a 2,000-year-old spirit allegedly [channeled](#) by José Alvarez when he toured Australia in 1988. Channeling was all the rage in Australia and an Australian television program contacted [James Randi](#) about finding someone who might show Australians that channeling was something doubtful. Randi approached Alvarez, a performance artist and friend who had long toyed with the idea of creating such a character. The rest, as they say, is history. Alvarez



looked at videotapes of other people speaking in strange voices, pretending to be in touch with other worlds, and he picked it up right away.

Eventually he went to Australia, took the performance into the Sydney Opera House before a rapt audience there, all handling crystals and beads and whatnot, and with charmed looks on their faces, attracted and enthralled by this man onstage, José Alvarez, doing the Spirit of Carlos that was claimed to be 2,000 years old. His performance was very convincing, and actually better than the "real" channellers!

However, all of the material that he produced was spurious. In the press releases he invented magazines and newspapers, he invented towns and cities and radio stations and TV channels and whatnot, that didn't even exist. He prepared videos of radio interviews and theater appearances that never happened. And just one phone call by the media back to the United States would have revealed the whole thing as a hoax. Even after it was all revealed on the Australian Sixty Minutes TV show, a week after the Opera House appearance, many continued to believe in "Carlos" and his uninspired messages. (Randi, personal correspondence.)

For Alvarez, the creation of the character "Carlos" was a performance/experiment to see how far he could take his creation, but his purpose was not to make people look foolish. He hoped to liberate them from

a false belief. However, the result of the performance seemed to demonstrate how easy it is to create a cult from scratch and how, even when the truth is revealed to them, some still refuse to accept it. The "Carlos" hoax also demonstrated how gullible and uncritical the mass media are when covering paranormal or supernatural topics. Rather than having an interest in exposing the truth, the members of the media were obsessed with "Carlos" the phenomenon and transformed his character from a hoax to a myth. The character Alvarez had so arduously created was transmogrified by the press. The media didn't even need to do any research to have determined that "Carlos" was not genuine. The biggest clue was handed to them on a silver platter: "Carlos" performed for free. He offered crystals from [Atlantis](#) for sale, but took orders rather than cash. Every journalist should know that the first sign of an authentic fake guru is greed.

José Alvarez had hoaxed an entire continent with his art. But he had created something that the media and his audiences would take from him and recreate to suit their own needs. One lesson here has to be the magician's refrain: deception requires cooperation. Another lesson might be that the need to believe in something like a "Carlos" is so great in some people that we must despair of them ever being liberated.

Alvarez continues to travel the world performing "Carlos" in a malleable manifestation of his initial "incarnation." He appears on global network TV, and performs before large live audiences, engaging them in discussions regarding gurus and the dangers of passive acceptance of unquestioned belief. His goal? To bring people real enlightenment.

His ongoing exploration of the nature of belief, charisma, and power, and how they intersect, was featured at the 2002 Biennial Exhibition at the Whitney Museum of American Art in New York City.

See **related entries** on [channeling](#), [Bridey Murphy](#), [Ramtha](#) and [self-deception](#).

further reading

- [Randi Interview with Paul Willis on "The Great Carlos" Hoax](#)
- [SWIFT VOL. 2 NO. 3 & 4 1998](#)
- [James Randi Educational Foundation Newsletter October 29, 2000](#)

Sagan, Carl. "Carlos," *Parade Magazine*, December 4, 1994.

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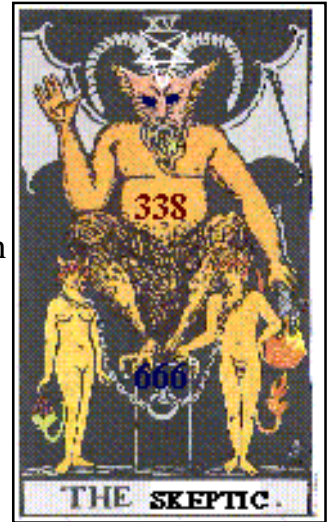
tarot cards

"The tarot is one of the most wonderful of human inventions. Despite all the outcries of philosophers, this pack of pictures, in which destiny is reflected as in a mirror with multiple facets, remains so vital and exercises so irresistible an attraction on imaginative minds that it is hardly possible that austere critics who speak in the name of an exact but uninteresting logic should ever succeed in abolishing its employment." --Grillot de Givry

Tarot cards are used today mainly in [fortune-telling](#).

A few years ago, tarot cards would have conjured up images of Gypsies, but today the cards are popular among occultists and New Agers in all walks of life.

The modern tarot deck has been traced back to fifteenth century Italy and a trick-taking game called triumphs (*tarots* in French) (Decker). The traditional tarot deck consists of two sets of cards, one (the [major arcana](#)) having 22 pictures, such as the Fool, the Devil, Temperance, the Hermit, the Sun, the Lovers, the Juggler, the Hanged Man and Death. The other set has 56 cards (the [minor arcana](#)) with kings (or lords), queens (or ladies), knights, and knaves (pages or servants) of sticks (or wands, cudgels or batons), swords, cups and coins.* Gypsies didn't begin using tarot cards until the twentieth century. Today, there are many different tarot decks used in [cartomancy](#). The meanings of the figures and numbers on tarot cards vary greatly among tarot readers and advocates, many of whom find connections between tarot and the [cabala](#), [astrology](#), [the I Ching](#), ancient Egypt, and various other occult and mystical notions.



The oldest playing cards date back to tenth century China, but the four suits of tarot and modern playing cards probably originated with a fourteenth century Muslim deck. [Decker] According to de Givry, in the modern 52-card deck of ordinary playing cards, sticks or wands = clubs (and announce news); swords = spades (and presage unhappiness and death); cups = hearts (and presage happiness); coins = diamonds (and presage money). According to Decker, the Muslim sticks represented polo sticks. As Europeans were not yet familiar with polo, they changed the suit of sticks to that of wands, cudgels or batons.

Tarot cards are usually read by a fortune-teller, though in these days of New Age Enterprise, anyone can buy a deck with instructions on [how to discover your real self and actualize your true potential](#). Why anyone's fate would be mysteriously contained in playing cards is a mystery indeed; although,

[sympathetic magic](#) seems to play a role.

There is a romantic irresistibility to the notion of shuffling the cards and casting one's fate, to putting one's cards on the table for all to see, to drawing into the unknown, to having one's life laid out and explained by strangers who have the gift of [clairvoyance](#), to gamble on the future, etc. The idea of staring at a picture card and letting it reveal the future or mirror the soul is not one that austere critics are likely to find tantalizing, but the thought of such visionary mysticism obviously has its attraction. Centuries of scientific advancement and learning have not diminished the popularity of occult guidance systems such as the tarot, [ouija boards](#), [astrology](#), [the I Ching](#), [palmistry](#), [iridology](#), [reflexology](#), [ink blots](#), [graphology](#), [enneagrams](#), crystal balls, tea leaves, etc. The need to be guided, to have assistance in making decisions, to be reassured, may have their roots in unfulfilled childhoods. For, it is in childhood that one needs guidance, assistance and direction. It is in childhood that one needs to be comforted and reassured that it is acceptable to be master of your own destiny. Perhaps the many adults seeking occult guidance represent generations of children not guided and directed but tyrannically commanded, not reassured but demeaned, not taught to be masters of their own destiny but taught to be insecure and dependent. In any case, some of the cards are very pretty and many of those who use them swear that they have come to a deeper and greater understanding of themselves by letting the cards stimulate their imagination. It helps them produce a self-narrative which gives sense, direction, and meaning to their lives.

[reader comments](#)

further reading

- [Facade Tarot](#)
- [Aeclectic Tarot](#) - reviews 250 Tarot decks
- [TarotNews.com](#)

[Decker, Ronald. "Tarot," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\), pp. 752-759.](#)

[Decker, Ronald and Michael Dummett and Thierry Depaulis. *A Wicked Pack of Cards: The Origins of the Occult Tarot* \(St. Martin's Press, 1996\).](#)

[de Givry, Grillot. *Witchcraft, Magic & Alchemy* \(New York: Dover Books, 1971\), republication of the 1931 Houghton Mifflin Company edition.](#)



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Carlos Castaneda (1925?-1998)

*"All paths are the same: they lead nowhere."
---Don Juan*

Carlos Castaneda was a best-selling author of a number of books centering on a Mexican Yaqui shaman's pharmacologically induced visions. He called the character Don Juan Matos. Castaneda claimed he was doing anthropology, that his books were not fiction. He was granted a Ph.D. by the UCLA Anthropology Department in 1973 for his third book, *Journey to Ixtlan*. Critics say the work is not ethnographically accurate and is a work of fiction.

Castaneda's books are full of stories of magic, sorcery, out-of-body experiences, etc. His first books hit the market during the 1960s when American culture was fascinated by Druglords such as Timothy Leary. These Druglords believed that the chemical changes in their brains which caused them to perceive the world differently and to perceive different worlds, were entering into a "divine" realm. Getting high meant opening the doors of perception to a higher reality.

Castaneda claimed that he met Don Juan in 1960 at a bus station in Nogales, Arizona. Castaneda was a graduate student in anthropology doing research on medicinal plants used by Indians of the Southwest. He claims that Don Juan made him a sorcerer's apprentice and introduced him to the world of peyote, etc. It is unlikely that a great shaman would pick someone up at a bus stop and make him a disciple, but we'll never know since no one but Castaneda ever met Don Juan. Was Don Juan a hoax? Maybe, but Castaneda's books have sold over eight million copies. How?

Castaneda obviously filled a need. He told good stories and gave enigmatic advice. He gave people hope, especially those who believe that the more modern civilization has become the further it has driven human beings from their spiritual or true nature. But these old shamans still know the way! They know truths your modern scientist has not even dreamed of! And they do hallucinogenics, too! Maybe that is why they thought they could fly and transmogrify into birds and other animals.

In his later years, Castaneda introduced a new way to get high: [Tensegrity](#). It involves meditation, exercises, a luminous egg, an assemblage point, depersonalization, dreaming, and other New Age magic. Tensegrity allegedly leads to the perception of "pure energy," breaking down the barriers to higher consciousness. It is supposed to be based on some ancient magic, known to Indian shamans centuries ago.

See related entries on [J.Z. Knight](#), [Raymond Moody](#) and [Charles Tart](#).

further reading

- [Jaun for the money](#) by Michael Brennan, *Fortean Times*
- [Dissertations as Fictions](#) by David Lavery, English Department, Middle Tennessee State University
- [Did Carlos Castaneda hallucinate that stuff in the Don Juan books or make it up?](#) *The Straight Dope* 21-Jun-2002

[Fikes, Jay Courtney. *Carlos Castaneda, Academic Opportunism and the Psychedelic Sixties* \(Millennia Press, 1996\).](#)

[Lindskoog, Kathryn. *Fakes, Frauds & Other Malarkey : 301 Amazing Stories & How Not to Be Fooled* \(Zondervan Publishing House, 1993\). \(read an excerpt on Castaneda\)](#)

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"Cattle Mutilations" -- Severe Lactic Acidosis?

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The "cattle mutilation" phenomenon has proved a puzzling mystery over the past several decades. Official answers cite predators or decomposition; but these explanations do not match the evidence. Alternatively, popular explanations invoke UFOs or satanic cults. My own hypothesis might lack drama, but it does fit all the facts.

Several factors characterize so-called "Cattle Mutilations". I'll list these, then see which can be explained as an extreme case of lactic acidosis.

Common features of "Cattle Mutilations"

- 1) A cow turns up dead with missing tissues / organs.
- 2) The dead cow is always missing the same or similar parts of its body -- lips, tongue, anus, genitals, ears, and often specific internal organs, such as the lower intestine. All missing tissues are either in close proximity to the cow's digestive tract or are connected to it via internal "plumbing". For example, the cow's ears are connected to the esophagus via the Eustachian tubes.
- 3) The amount of missing tissue varies from case to case. Damage to various parts of the cow appears to be scaled proportionally -- for instance, if a cow is missing a lot of skin around its anus, then it is likely to be missing a lot of skin around its mouth, etcetera.
- 4) Although the cow is missing plenty of skin and internal organs, no blood is found near the carcass.
- 5) The edges of the wounds are perfectly smooth and gently curved, sometimes showing a serrated pattern. There are no cut marks or teeth marks, though investigators always look for these signs.
- 6) Often, investigators remark that the wounds appear to have been chemically burned. Laboratory testing has confirmed that tissues have been subjected to high temperatures.
- 7) There are no signs of decomposition. In some cases the cow was seen alive less than a day before it was found dead.
- 8) There are no animal, human or vehicle tracks around the cow. There are no signs of a struggle. Investigators have been so far unable to find conclusive signs

that sedatives were used on the cow.

What is Lactic Acidosis?

Lactic Acidosis is a well-studied phenomenon, and numerous links can be found on the internet. Here is a quote from

<http://www.ars.usda.gov/is/pr/1997/970328.htm>

“When cattle switch from a high-forage diet to a grain-rich finishing ration, millions of *S. bovis* in the cattle’s rumen--a stomach compartment--gobble up more glucose from the grain than they need and, in turn, spew out an abundance of lactic acid. The animals can develop lactic acidosis--a giant stomachache.

Sometimes life-threatening, lactic acidosis inhibits animals’ weight gain and can lead to liver abscesses and other abnormalities. The result: Losses of up to \$100 million annually for the U.S. cattle feeding industry.”

And from

<http://www.westerndairyscience.com/html/ADM%20articles/html/Acidosis.html>

“Rumen acidosis is the number one metabolic disorder diagnosed by the University of Wisconsin Veterinary College. Two types of acidosis are reported in the field: acute and subacute. Acute acidosis is less common but more severe. Affected animals are depressed, off-feed, have an elevated heart rate, diarrhea and may die.”

Lactic Acidosis is an affliction usually associated with feedlot cows. But it can strike any cow that experiences certain types of sudden change in diet. A cow suffering from severe Lactic Acidosis is often very hungry and gorges itself. The more the cow eats, the more fuel is available for fermentation. In severe cases, so much acid is produced that it kills the cow.

Point by Point: “Cattle Mutilations as Lactic Acidosis”

1) "A cow turns up dead...."

-- As quoted above, lactic acidosis is known to kill cattle. The missing tissues and organs are burned off by the runaway production of acid by bacteria within the cow's rumen.

2) "The dead cow is always missing the same or similar parts...."

-- The acid travels through the cow via diarrhea and vomiting. As acid washes over various tissues, it gradually burns them down. ALL of the lost tissues are

located such that they would be subject to acid burns from diarrhea and vomiting.

3) "The amount of missing tissue varies..."

-- The amount of acid produced would be directly proportional to the severity of the acidosis, which varies.

4) "...no blood is found near the carcass."

-- The burning effects of the acid would cauterize the wounds.

5) "The edges of the wounds are perfectly smooth and gently curved, sometimes showing a serrated pattern..."

-- Acid burns do not leave knife marks. Because acid is a fluid, it produces wounds with perfectly smooth edges. A serrated pattern occurs because the acid is not all released simultaneously. Rather it is vomited up (or expelled as diarrhea) in successive waves, causing serrated wound marks.

6) "...tissues have been subjected to high temperatures."

-- When acid reacts with a material, the ensuing chemical reaction produces heat as a byproduct. That's why injuries from acid are referred to as "burns".

7) "There are no signs of decomposition..."

-- The cow's tissues were burned by acid. There is no need to credit predators, parasites or bacteria to account for the missing tissues.

8) "There are no animal, human or vehicle tracks around the cow..."

-- The cow died on its own because it ate the right type of food at the wrong time.

Observations

ALL aspects of so-called Cattle Mutilation can be explained as severe Lactic Acidosis. People are thrown off track by the unusual severity of the symptoms. Because the dead cow has missing parts, investigators understandably assume that those parts were cut off. This becomes the premise for investigations that unfortunately are doomed by definition.

Lactic Acidosis is typically associated with feedlot cattle, not range cattle. From <http://vetgate.ac.uk/browse/cabi/detail/b47fbd8545c1dcbc2bf9394c0c78aca2.html>

“Most feedlot managers readily recognize the effects of acute acidosis. Many cattle diagnosed as "sudden death" may have died from acute acidosis. “

Thus range cattle with the affliction are more likely to be misdiagnosed. In extreme cases, the cows are thought to be mutilated.



reader comments:

cattle mutilation

13 Mar 2003

First, let me thank you for your description of "Extreme Lactic Acidosis" as a rumination. I still have coffee-induced rhinitis from that. Second, as a vet student, etc., your readers may rest assured that lactate, in all it's forms, isn't likely to directly cause that type of physical injury. Specifically, the pH of an incredibly acidotic rumen wouldn't fall below that of an average monogastric mammal. I'd give cites, but I am up to my elbows (literally -- ha!) in horses right now. I'd bet the Merck Manual of chemicals, etc, would be instructive.

Greg Griffeth

Kevin Sterns replies: So what? The digestive juices in our stomachs are quite capable of breaking down most animal tissues. Suppose the acid in my stomach becomes over-produced and is continuously expelled over a 24-hour period? The tissues around my mouth (for example) would be destroyed, and remaining tissues would show signs of chemical burns.

1 Nov 2002

Your entry on cattle mutilations was very myopic and downright insulting to the farmers which it happens to. I happen to fall into that category. I've lost several cattle over the years from this. I've also lost many cattle over the years to natural causes, predators, stupid city folk trying to be big white hunters, etc. My family has been in the cattle business for generations and this phenomena is something new. Blowflies don't do their work when it's 10 degrees below zero. I don't think it's UFOs, but it damn sure isn't buzzards and blowflies, either.

(unsigned)

29 Sep 1999

*I recently came across your **Skeptic's Dictionary** and have spent the last three nights, and several hours, enjoying your insight of several topics that have been of interest to me. When I saw your reference to cattle mutilations I had to respond. In the spring of 1975 I was in the Army (Military Police) stationed at Ft. Hood, Texas. As with civilian police agencies, Military Police do basic*

police duties (patrol, criminal investigations, traffic control, etc.) and other military requirements when directed. Holding the rank of Private First Class (E-3) I did not have much input, if any, in the assignments I received and usually drew the least desirable duties.

In the latter part of April, 1975, I was on patrol with another young soldier Specialist 4th Class (E-4) driving a 4 WD Jeep. Our patrol area was in one of the most remote areas of the base (North Fort as I believe it was called) and we spent most of the evening testing the jeep on the many "tank trails" which were in abundance in that area and just enjoying (as best as possible under the circumstances) the spring weather. Late in our shift, early morning about 4:00 A.M., we came across a dead cow in the middle of one of the well used tank trails. Tank trails are not paved and it was easy to determine that several tracked vehicles had recently been in the area. Finding a cattle carcass was not uncommon (at least until that day) as local ranchers leased grazing areas from the military and cattle were often wandering onto main roads, where they were struck by military or privately owned vehicles, and into live munitions testing/training areas.

After a few minutes of debate (my partner had read in the local paper, Killeen Daily Herald, about recent "cattle mutilations" found on and around the Ft. Hood area and did not want to do the paperwork he assumed would follow) we decided to call it in and, as it appeared to me to be a young "bull", move the carcass off the trail. It wasn't long before I realized I should have kept my mouth shut. It was just a matter of seconds before every vehicle with a radio on our frequency was asking for our location. After giving directions as best as possible it wasn't long, about thirty minutes, before several vehicles began to arrive including "agents" from our Criminal Investigation Division. We had been told, over the radio, while we waited, not to touch anything and to treat the area as a Crime Scene! I listened in complete awe as various people discussed the possible reasons as to this unfortunate animals demise. The most prevalent was a "satanic cult." I should note at this point that parts of the cows ears, anus, eyes, nose and tail were missing but being from Texas I attributed this to local predators (coyotes, feral packs of dogs) and voiced this opinion. When I observed a photographer taking photographs of "mysterious" black spots in and around the grassy area I again voiced my opinion by attributing this to the exhaust of idling diesel engines from the many large vehicles that use the trail. I guess this was too much for someone, as I was soon assigned the job of directing traffic from the main road.

While doing this task a civilian pickup truck approached and a local rancher stopped and asked if there had been an accident. I told him about the young calf and he replied "yeah I found him about 6:00 last night and left him for the coyotes." When I explained what the prevalent thinking was as to the cows demise he laughed and said "Hell, coyotes' killed it, I saw one pulling on his nose when I drove up and was coming back to bait the carcass." I guess some type of predator bait but didn't inquire as I was laughing too hard and the rancher shook his head and drove off. As it was becoming daylight a Major

arrived and ordered everyone to leave as, in his words "there is nothing here worth our time." So everyone left, I made an entry in the patrol log and that was that.

How wrong I was. After returning to work the next day I found that this incident had grown to mythic proportions. For awhile I tried to enlighten people as to the truth but found, on the most part, that it was not possible. I then put the incident behind me and tried to forget about it although when I wanted a good laugh I would relate this to people who were hooked on this story until I related the ending. I even had someone a few years ago accuse me of being "part of the cover-up" when I interrupted a conversation about this subject between some co-workers and related this incident. So be it. Very sad but true.

P. McDermott

reply: You wouldn't be handing us a line of bull, would you?

26 Sep 1997

I am a civil engineer, non-theist, amateur evolutionary biologist, law abiding, tell it like it is citizen. Having said that I thought I would inform you of a local story that just broke a few weeks ago about cattle mutilations in the Lassen National Forrest at Papoose Meadow. According to the article, which was in the Valley Post from Anderson, CA, there have been several mutilations with all the signs of the classic cattle mutilation. Fish and Game, and other local officials concluded that some type of non-traditional religious group was involved with the first few mutilations. The ranchers think this is unlikely according to the article.

Reply: If Fish and Game and other "officials" concluded (a) that there were "mutilations" and that (b) these were done by some "non-traditional religious group", then you should become suspicious. Traditional religious groups are the ones who started butchering animals as part of their worship. To qualify as an official non-traditional religious group you have to sign an oath not to harm animals, except other humans, and then only in self-defense, unless, of course the animal signs a release form.

Also a good friend of mine who raises lamas actually saw a round object moving silently over his meadow near the Lassen area last April. The amazing thing is that he took pictures and is going to show them to me next week. If we assume that the pictures are real and that only the US military or aliens possess such vehicles and that all US military flights are strictly controlled and that aliens have an interest in animals for nutrition or experimentation then I would conclude that what he saw was an alien vehicle inspecting his livestock because I doubt if secret US military vehicles wonder around meadows as part of their flight path.

Reply: It's been two months since I first heard from you and no word on these photos yet. You might consider not making so many assumptions and try drawing some other inferences from the data. Even if the photos are "real", there might be another explanation besides military planes and alien rancher-experimenters.

Sounds a bit crazy but the evidence for an alien presence on this planet is mounting and I suspect will eventually become trivial. It seems somewhat surreal when unusual things happen locally.

Reply: I agree on the "sounds a bit crazy", "trivial" and the "surreal" parts, but the only thing that seems to be mounting is the evidence that people believe there is mounting evidence for all kinds of strange things. We skeptics are not quite as impressed by these stories, however.

Also, the ranchers claim that one cow was found dead with one horn buried in the ground and another bull was found dead sitting on its back legs. There were no signs of any vehicles or human activity according to the article. The ranchers believe that the animals were dropped from the air.

Reply: Don't rule out ball lightning or a cattle seance that went awry. But the theory that aliens are dropping cattle to see what happens is right up there on top of my list of possibilities that make life so interesting to explore.

It's a fascinating subject.

Barry Sutter, PE

reply: Yes, it certainly is.

It's interesting. I just read your segment on cattle mutilations, and I find that though you are critical of Linda Howe's program, you offer no alternative explanations, other than the possibility that the government is probably perpetuating the phenomena. This would be an attractive idea, and would go far in explaining away the phenomena, if it weren't for the fact that the government has a great deal of its own land on which it could perform these mutilations, relatively safe from the public eye. I don't claim to know what is behind this phenomena, but after looking at the evidence, I do not find predators, cultists, the government, or even Newt Gingrich to be very compelling explanations. My recommendation is that you address yourself to this topic more seriously, for it would behoove us all to know the truth of the matter.

Steve Thompson

reply: I state that there are plenty of alternative explanations (as you yourself note near the end of your note when you reject the alternatives), all of them naturalistic and normal (e.g., human and other animal predators).

I can't understand how you read my article and think that I say that the government has anything to do with either cattle mutilations, cover-ups of cattle mutilations, or anything having to do with cattle at all.

I don't think I need to get more serious than I have been. I think we probably already have the truth of the matter, but let me know what you dig up with your research.

A couple of years ago though, I reached a different conclusion as I stared down upon the carcass of a dead horse that my neighbor had found in his pasture. The only thing missing from this horse (beyond any blood whatsoever, either within the carcass or on the ground surrounding) was its genitals. Forgetting the lack of blood for a second, what predator is this selective?

Steve

reply: The human predator would be my guess, or insects [see the next letter].

20 Dec 96

I have been enjoying your Skeptic's Dictionary website and in general I find it to be quite broad. Lots of ground covered. And you seem to (usually) keep a level head and respect opposite points of view. And all the hotlinks were no doubt quite a bit of work to add... So, good site overall and I'm sure the world needs more like it. Maybe if you shouted from rooftops.

Anyway, I'm sure you also get plenty of criticism along the lines of what I'm offering -- it seems that some of your entries lack depth.

reply: Some lack width and height, too. Anyway, I'm not sure all readers would agree that I respect opposite points of view. If I've given that impression, I apologize.

But then I'm not out there putting all this stuff on the net. The piece on cattle mutilations seemed to me to really miss the boat.

reply: Maybe you should read the entry on Noah's Ark. He's the one responsible for all these cattle, anyway.

Your article focused on mostly the inanity of the conspiracy theories about cattle mutilations without really offering any solid debunking or concrete

counter-explanations. In short, your piece could be summed up as, "That's a lot of crazy talk. I don't know what's doing it, but it sure ain't UFO's." That's true. But I know there's some more information out there on the subject.

reply: You've hit the nail on the head! I know some of my readers expect me to have the answers to all questions. They are not satisfied with a plain debunking; they want a solid one, one which includes the one, true, final, correct explanation for whatever. Unfortunately, I am not The Answer Man, nor do I pretend to be. I have tried to explain this in several entries, but I'll try again. If someone tells me that she has been having migraines ever since aliens implanted a sonar detector in her brain, I will give the best argument I can to persuade her that her headaches are probably not due to alien implants. I will not try to persuade her that she does not have headaches and I will feel under no obligation to try to find an explanation for either her headaches or for her belief that aliens implanted a sonar device in her head. As to the cause of her headaches--the "real" explanation--I don't feel qualified to try to answer that question. I suggest she see a medical doctor. Likewise, if you want to know why your cattle are dead and "mutilated" call a veterinarian, don't call me. As to explaining delusional beliefs, I'd just have to speculate, like any good philosophical psychologist. Sometimes I feel like speculating, sometimes I don't.

In one of Cecil Adams' "Straight Dope" books, there was an article on cattle mutilations in which he mentioned a series of experiments performed with dead cattle left exposed to the elements. The short answer is that insect scavengers, specifically blowflies (if I remember right), do a very nice job approximating the "surgical mutilations" reported by the UFO theory community. Moreover, the experiment observed that the insect predators frequently attack the exposed mucous membranes of the dead animals -- they're the easiest and choicest bits, I suppose. This goes a long way to explaining the aliens' fascination with cattle genitals.

reply: Well, there you have it, then. I don't need to give the answers, since Cecil Adams has already done so and you have been kind enough to pass on this solid explanation. I am sure it explains many cases of "surgical precision," but don't expect the UFOers to take too kindly to this attempt at an earthly account of the matter.

Anyway, hope you find the time to flesh this entry out. Thanks for a great website, though, and keep preaching to the converted.

Dr. Paul Vetter

reply: Thank you, doctor! [Say, you're not a veterinarian, are you?] I'll remember to mention the blowflies in my next sermon.

8 Mar 1997

Some comments regarding your page on cattle mutilation: Linda Moulton Howe says:

The cuts were made rapidly, probably in two minutes or less, because there is no inflammatory cell destruction which typically begins in a few minutes after any trauma to tissue.

Now, I'm not a biologist or a doctor, but it seems reasonable that, if the cows were already dead, any mutilation done to them wouldn't cause inflammation, since the dead body wouldn't be reacting any more (but then again, maybe making cuts to dead bodies does cause inflammation).

About the lack of blood, if the cow was dead of a while before being mutilated, the gravity would settle blood to the parts of the cow lowest to the ground, so making a cut to pretty much anywhere on the body wouldn't result in bleeding.

As to why 'why beings with the intelligence and power to travel billion of miles to our planet would spend time mutilating cows': who knows? They're aliens. If I were trying to make up a reason for a SF story, I might say "it's how they get their kicks" or "its part of their religion" or something like that. But speaking seriously, we humans sometimes have a hard time understanding our fellow humans from other cultures (or even fellow humans from the same culture), even though our fellow humans have the same physiology and have the same physical structure and mechanisms in their brains as we do. How much more difficult would it be to understand aliens who don't share our physiology and the way our brain works? In other words, if someone claims that aliens are doing something totally bizarre and beyond reason, that can't be used to argue against their claims.

Matthew Cline

reply: I was following you until your last sentence. If making claims which are "beyond reason" can't be used against you, what can?

11 Mar 1997

I would like to submit a possible explanation for these odd occurrences of mutilated cattle being found with very little or no blood stains, and surgically removed organs. It seems that when cattle die, their large bovine hearts stop beating. Go figure, they work just like humans in that respect. Bear in mind that without a beating heart to propel it, blood has nothing but gravity and perhaps a bit of internal gas pressure to coax it out of an opening, so if someone were to cut into a dead cow, he or she shouldn't necessarily expect huge pools of blood to spew forth.

With that in mind, if a rancher or farmer has a cow that dies, he's out some money, and insurance companies don't sell life insurance for cows (Or maybe Lloyds does. Wouldn't be the weirdest thing they've ever insured.) At any rate, insurance companies do cover vandalism damage.

It is entirely likely that, upon finding a dead cow in the field, some farmers have turned that sad news into happy profit by doing a bit of nip & tuck, and blaming (aliens, the government, horny teenagers, whatever.)

Joseph Betz

11 Mar 1997

As I recall, in the 1970's, there was a remote controlled surgical table developed for NASA. It was considered undesirable to staff future space stations with medical staff, when it could be run remotely from ground control. The table utilized two tightly generated directional high frequency beams. Individually, each beam passes through flesh and bone without harm. Where the beams intersect, the frequency is changed. Depending on the modulation, the intersect can fuse or cut. This allows surgery without an incision. The example shown in a promotional film was an appendectomy. Before each cut, the tissue on each side is fused to prevent internal bleeding. The removal of the disconnected appendix could then be performed by a small incision by a fellow astronaut with minimal direction.

reply: Laser surgery is quite common, today. I'll bet you're going to suggest that mutilated cows have been operated on by lasers!

Assuming there are satellites in orbit and they can generate such beams of energy, it would be fairly simple to target an animal that stands in an open field and sleeps on its feet. Fusing certain nerves or portions of brain might effectively disconnect the animal from pain. A number of surgical procedures can then be performed invisibly to the casual viewer. The destruction of blood and body parts may be possible through a remodulation of the beams or through the use of multiple beams. Even unusual atmospheric effects might be generated incidentally or purposely.

reply: Hell, NASA is lucky if their rockets don't explode on the ground. But I'll grant you what you say and even add that it is possible that there are invisible guys sitting on the satellites dropping fertilizer pellets.

The purpose of cattle mutilations might simply be the unauthorized use of satellite technology by those with the day to day responsibility for satellite maintenance and care.

reply: It might be. Then again, it might not be.

In the wee hours of the morning, a bright and bored technician might find it, as amusing as, a video game. Chopping up hamburger might not seem unduly cruel to technicians trained to conduct a nuclear war, remotely.

reply: Maybe. Maybe not.

It's not so much a conspiracy, as it is taking advantage of resources. A weapon you don't use is a useless weapon. If, you had the power of US nuclear technology at your fingertips, cattle mutilation might not seem so serious to a 23 year old technician.

John Grisham

reply: I'm sure the military could find some live cattle of their own to practice on, if they so desired. Do you think we used lasers on the Iraqis just for practice?

21 Mar 1997

Here's an interesting addition to the Cattle Mutilations section:

First, I'll point out at this point that this is a paraphrase of a story told at lecture my friend attended, and then repeated to me. Hardly a "substantiated" story, but a lot more plausible than alien haggis lovers.

The story: In an area of cattle country (Texas I think) there was a rash of "weird cow deaths". The cattle would be found dead in the fields without any apparent reason. Obviously concerned that whatever had killed the cattle would get the rest, the ranchers had autopsies performed on the deceased bovines. What they found made it to the front Pages in the area. The cattle had vital internal organs removed without any external incision! Horrors! Quirky BEM's no doubt (that's "bug-eyed monsters" if you're not familiar). The story caused a lot of stir and got a lot of attention for a while and then died down.

Later, someone actually decided to do a scientific investigation and the answer turned out to be a lot weirder than aliens in my opinion, if only because it was true: weasels. The cattle had died of some disease (which wasn't discovered earlier because of the distraction caused by the missing livers and so on). After their death the local weasels, which apparently like those tasty cow insides, would take the opportunity to go get some fresh ones. Naturally they went in the easiest way, which happened to be the cows anuses. They'd squirm in, eat to their hearts content and squirm out. This was much easier than chewing past all of that hide and muscle just to get to the good bits.

Typically, though reported, this revelation got far less attention than the "Cows

Missing Livers: Alien?" type stories, thus many still came away thinking that extra-terrestrial origins were not just probably but confirmed in some official way. The "Weasel Retraction" was probably buried way in the back.

I can't confirm any of this, so I'll present it for entertainment only, but I trust my friend and the lecturer she went to see struck me as trustworthy at the time, though I can't remember who it was (a naturalist of some sort). Keep up the good work.

Victor Allen

reply: hmmm. I've heard of weasels sucking the egg from the shell and leaving the shell behind, but never of sucking the livers out of dead cows. The story is entertaining, I suppose, but I can't say whether it is true or not. I'll say that the burrowing weasel story is at least as plausible as the alien rustler theory. But I still think insects and natural forces are more likely than anal burrowing weasels.

1 Apr 1997

I wasn't aware that this was still considered open. I'm sorry I don't have references to hand, so this will be purely anecdotal.

Somebody finally realized that veterinarians don't deal with carcasses, and called in pathologists. They report that the so-called mutilations are the normal result of decomposition and scavengers on carcasses that are not buried or burned.

Do not read this paragraph while eating! Scavengers eat soft parts, (ears, eyes, tongue, and penis or udder), rather than attack the hide proper. Decomposition later tightens the muscle fibers, drawing the wounds of the avulsions back inside the carcass. Meanwhile, the gasses of decomposition evert the anus and in female animals the womb, more soft parts for scavengers to scavenge. The gasses then escape, and further decomposition draws these wounds inward also. If all this happens during the fly season, the maggots eat the edges of the wounds and leave them smooth. If it happens outside fly season, the wounds remain jagged. Descriptions of "typical" cattle mutilations follow this pattern, especially the matter of fly season.

Once the pathologists had cleared out the normal carcass deterioration, the very few cases that did not follow the pattern could be isolated and quickly solved. These were unstable individuals with a background of torturing urban animals (dogs, cats, squirrels, &c) who were inspired by the "cattle mutilation" story to hunt bigger game. Copycat crimes, though the first actual crimes of their type, because they were copying unsubstantiated rumors of crime rather than reports of actual crimes committed.

If all this is old hat, and I simply missed the reference, I apologize for taking up everyone's time.

Lee Burwasser

15 May 98

I read your piece on cattle mutilations. This is in response to those who argue that the behavior of extraterrestrials is inherently inexplicable, and this is why they mutilate cattle instead of asking the government (with whom they supposedly have a treaty or agreement) to buy them a herd to breed and utilize.

Beings who are truly alien in behavior and psychology would be incapable of making a treaty with the government of any country. They might not even be capable of realizing or understanding that the bustling bipeds in large conglomerations are intelligent beings. If they did, they would still face difficulties in making themselves understood to humans, and in understanding human concepts. So any treaty or agreement, unless pared down to the most basic concepts, would be improbable (if not impossible). This same 'alienness' would effectively prevent any efforts at 'reverse engineering' of extraterrestrials' technology in reciprocation for body parts of dead cattle.

Juliet Fischer

reply: Those who believe possess the ultimate trump card for all objections to their notions: the ways of the aliens (gods, etc.) are incomprehensible, therefore anything goes except what makes the most sense. We might call this *the fideist's non sequitur*.

13 Jul 1998

*Re the cattle mutilations sections and comments, I happen to have a copy of **Operation Animal Mutilation Report of the District Attorney, First Judicial District, State of New Mexico** by Kenneth M. Rommel, Jr., Project Director, published in June of 1980. Mr. Rommel investigated all 177 reported cases of animal mutilation in the state of New Mexico from 1975 to 1980, and so can hardly be accused of drawing his conclusion -- that there was nothing 'mysterious' about the mutilations -- on the basis of an insufficient number of cases. I won't quote the whole shebang, but yes, incisions to a carcass by the teeth of predators/scavengers can indeed resemble knife cuts (even in bone, as I can personally attest as a zooarchaeologist-in-training), while the characteristic pattern of removals listed as indicative of 'classic' mutilation -- sexual organs, tongue, eyes, ears, and anus -- are indeed precisely those normally attacked by scavengers, as these organs are vulnerable, tender, and provide comparatively quick and easy access to the interior of the carcass. Rommel cites a study performed with a newly-dead calf in 1980, in which many of these 'classic' mutilations were seen to occur during a 30-hour period of*

continuous observation. The culprits were blowflies, skunks, and buzzards. Rommel also found that the apparent lack of blood within the mutilated animals was not substantiated by necropsy reports, but seemed to be based on the lack of blood observed at the scene. As other letters to you have noted this is often due to blood settling after death; but the experiment with the calf above also noted that blood found within the carcass and the very little spilled to the ground was quickly consumed, particularly by the blowflies.

Mr. Rommel goes into other claims, including the failure of the family dogs to bark in the night, mysterious fly deaths, unusually slow rates of decay or arrested decay, avoidance of the carcasses by other animals, etc., etc. As you might expect, where such phenomena were observed to occur, they were generally readily explainable, while the more mysterious elements proved to be scientifically explicable (the most unusual element being a peculiar but known fungal disease of scavenging flies, which was observed to cause mass fly deaths in at least one otherwise unremarkable case).

It's an excellent report, and deserves to be more widely known. But then again, it's the tripe that sells.

Stacy Scott



[Cattle "Mutilations"](#)

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osteopathy

Osteopathy is a medical practice based on the theory that diseases are due chiefly to loss of structural integrity which can be restored to harmony or equilibrium by manipulation. The manipulation allegedly allows the body to heal itself. Osteopaths use manipulation for diagnosis, treatment, *and* prevention of disease.

[Andrew Taylor Still](#) (1828-1917), a Civil War surgeon in the Union army, is credited with discovering osteopathy as an alternative to the medical practices common in his day, practices which failed to save his three children from spinal meningitis. Still became convinced that he could cure diseases by shaking the body or manipulating the spine. In his autobiography, he says he could "shake a child and stop scarlet fever, croup, diphtheria, and cure whooping cough in three days by a wring of its neck" ([Barrett](#)). He also advocated clean living, including abstinence from alcohol and medically prescribed drugs. Surgery was to be avoided, if possible. Today, D.O.s (doctors of osteopathy) complement manipulation with standard medical methods of diagnosis and treatment, including recommending drug therapy and surgery if appropriate. D.O.s have four years of medical training at a college of osteopathic medicine and do a one-year internship in primary care. Some continue their education in an area of osteopathic specialization. Nevertheless, there has still not been scientific validation of Still's theory of shaking and manipulating to remove obstructions.

See related entry on [chiropractic](#) and [craniosacral therapy](#).

further reading

- [Dubious Aspects of Osteopathy](#) by Stephen Barrett, M.D.
- [The Paradox Of Osteopathy](#)
- [Allopathic \(M.D.\) Versus Osteopathic \(D.O.\) Medical Schools Views of a Basic Scientist With Experience in Both](#)
- [American Osteopathic Association](#)

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reader comments:

Edgar Cayce

9 Jul 1999

I just ran across your page on Edgar Cayce. I disagree with your views, of course. In particular, your suggestion that an excerpt, taken from a reading of a woman with tuberculosis, was a 'miss', rather than a 'hit'.

You stated that his followers felt it was a 'hit' only because he mentioned the lung, and that his mentioning of the dorsals, lumbar, floating lesions, solar plexus and stomach were incorrect diagnoses. You go on to question his recommendations of osteopathic treatment for people with tuberculosis, epilepsy and cancer.

In response, one must wonder if you believe that the lung(s) is just sitting there in one's body all alone, not connected, in any way, to any other part of one's body. You must believe that imbalances of any kind in one's body only effect that one particular part of one's body.

reply: No, believe it or not but I believe that the lungs do not just sit there in one's body and that an imbalance in one part of the body often affects other biological functions.

I hope you understand that I am saying that your whole body is one system made up of sub-systems. Any imbalance within any system that is within the whole system can and does effect any or all the systems. For, it is all connected.

Most of the time, his suggestions for treatment did seem to be far from the stated problem or complaint. However, this was because he was actually directly addressing treatment to the 'first cause' or root of the problem, rather than merely treating the symptoms, as do so many of our doctors, today. In only treating the symptoms, the problem stands, only masked, and either resurfaces as before or finds new outlets. This fools most doctors into believing the one problem is 'cured' only to be replaced by a new one. And so, the cycle begins with the body becoming more and more debilitated. All unnecessary, when one considers the logic of Cayce's method.

reply: I see it all very clearly now. So, when a chiropractor identifies a need for lumbar alignment when a person really has cancer, the chiropractor is treating the root of the problem. Very interesting. How do we test this theory?

I must say that you, obviously, have not studied and researched Edgar Cayce as thoroughly as you should have to earn credence in your work as a skeptic. I say this because, if you had, you would have discovered that, on numerous occasions, he gave readings on persons that were, at the time of the readings, in other cities or even states.

reply: Many people do psychic medical readings of people in other cities. But are their diagnoses correct? Where is the proof that anyone can diagnosis illness by telepathy?

This is not so convincing, you say. However, he would occasionally provide an aside remark about what the person was, at that time wearing, doing, saying, as well as, describe the surroundings, furnishings, rooms, houses, and even streets. These were, of course, recorded by a stenographer and later substantiated by the person the reading was given for, as well as others. You say that he gleaned the information from assistants and letters from the people asking for the readings. These people would not and did not describe these things in simple requests for readings.

reply: Is this kind of credulity what you consider to be "thorough research"?

I know you say that these things were not proven by the mere testimonials. I say to you that, as Jesus said, and I paraphrase, one should say only yea or nay to be believed.

reply: At least you were making sense up to here. What does Jesus have to with Cayce's claims?

Believe me please, when I say to you, that not only is everything in one's body connected, therefore effected through any given cause, but so is everything and everyone connected in all of creation. Please don't ever think that anything or everything you think, desire, feel or do does not effect any or all of the rest of creation. It does, it does.

reply: I believe you, but I don't see what is so interesting or important about everything being connected. Most of the effects in the universe are immeasurable and of no interest to anyone except vain occult speculators.

This is not meant, in any way, to cause offense, but to encourage reconsideration. I submit to you a formal and personal request to perform a new, more thorough study of all of the Cayce material before publishing your skeptic views.

I wish you Happiness, Joy and Laughter
Lynn Giddens

reply: Thank you. I promise to be at least as thorough and critical as you have been.

31 Mar 1998

I enjoyed reading your comments on my grandfather, Edgar Cayce. While I never knew him, I'm probably as skeptical as anyone re: the data he gave. Yet I've seen application of some of the concepts save and change people's lives - physically.

The ARE [Edgar Cayce Resource Center] is not doing what it should and is completely ignoring research - research into 63% of that material of physical ailments. The medical profession refuses to touch it because M.D.'s in this area can have their medical privileges taken from them at hospitals if too closely associated with information they know nothing about!

Dr. Brainard based most of his research on the pineal on hypotheses from the readings and can give you both an interesting and funny lecture on the subject. But when asked to appear on T.V., he couldn't - he'd lose his professorship.

I know the sting of it all because I'm married to an M.D. One who is interested, but very secretive about his interest. He has to make a living and the AMA is a pretty strong arm.

*People seem to forget that all Cayce gave were "readings" - basically an enormous amount of psychic data. It was not all correct. I refer you to a book by my father, Edgar Evans Cayce and Hugh Lynn Cayce on the cases that seemed to be wrong **OUTER LIMITS OF EDGAR CAYCE'S POWER**. Do take a look at it.*

*My father is an electrical engineer and probably wished the subject "Atlantis" never came up in the psychic data given. But he wrote a book after studying all the readings that mentioned Atlantis in 1968 - **EDGAR CAYCE ON ATLANTIS**. He later co-authored a book with Dr. Douglas Richards and myself **MYSTERIES OF ATLANTIS REVISITED** which tries to objectively look at what Cayce gave and at geological and archaeological evidence up to 1988. A more recent version was recently published by St. Martins. You can take a look at it at <http://www.edgar-cayce.com>.*

*If you're a good skeptic - take time to look at the book **MYSTERIES OF ATLANTIS REVISITED** - at least so you can be skeptical in an intelligent way. I would be quite interested in your comments on the book - as well as the others mentioned here.*

Finally, a good deal of the crap ARE is publishing at present is just that - crap.

*But there are some good books. The best on my grandfather's life is **THERE IS A RIVER** by Thomas Sugrue. Sugrue was my uncle's roommate in college and was given up for dead by the doctors when he came to the beach. Pop said he weighed all of 80 pounds when they carried him in. At any rate, he recovered to the extent that he could take up his job again - reporting for the **Chicago Herald** - in the 2nd World War, though I believe he had to use a wheelchair. His account of Cayce was done after his recovery. He thought he was a bunch of crap before then. Check out his book too. He almost was kicked out of the Catholic Church when he wrote **A CATHOLIC SPEAKS HIS MIND** - but that's another story.*

*Sincerely yours,
Gail Cayce Schwartz*

reply: I don't know what to say. I don't know if I'm a "good" skeptic or not. Only time will tell. Will I revisit this great mystery of Atlantis? Only time will tell. Will I go through the thousands of Cayce readings to separate the wheat from the chaff? I may leave that task to others. Does it help a psychic's case to admit that he was not infallible? I don't think so. You mention some tempting books; I'm afraid my reading list is already quite long but maybe some readers will be interested and have the time to explore these great mysteries further.



[Edgar Cayce](#)

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The Celestine Prophecy

The Celestine Prophecy is the title of a novel by James Redfield. The novel is seen as a spiritual guide for the New Age. One devotee describes it this way.

This book is very simply about how we get and use energy. When we get enough energy, in the right ways, we can "raise our vibration." With a higher vibration we are better able to tap into our psychic and intuitive skills, and thus are better able to discover and live our true purpose in life.

Even Redfield treats his novel as a spiritual guide and basis for a spiritual and material industry. He's started a newsletter for his followers: [*The Celestine Journal: Exploring Spiritual Transformation*](#). He has a sequel, [*The Tenth Insight*](#), said to be "a trip that will take you through portals into other dimensions." And a further sequel, [*The Secret of Shambhala; In Search of the Eleventh Insight*](#). He also has [audio tapes and CDs for sale](#).

Redfield starts with a notion shared by many New Age gurus: the world is emerging into a new spiritual awareness. He puts it this way:

For half a century now, a new consciousness has been entering the human world, a new awareness that can only be called transcendent, spiritual. If you find yourself reading this book, then perhaps you already sense what is happening, already feel it inside.

What is the evidence for this New Age? Vague references to *vibrations* and *energy*. For those who don't get it yet, there is vague advice to avoid the negative (you can tell good people by their eyes), stop doubting, follow your intuitions and premonitions, flow with coincidences, believe in the purposiveness of everything, join thousands of others on the quest, tune into your feelings and evolve to a higher plane.

In the novel, the meaning of life is revealed in an ancient Peruvian manuscript written in Aramaic. It predicts a massive spiritual transformation of society in the late twentieth century. We will finally grasp the secrets of the universe, the mysteries of existence, the meaning of life. The real meaning and purpose of life won't be found in religion and it won't be found in material wealth, but rather in things like [auras](#). The manuscript is full of insights like this and these insights are the way to the transformation. How do we know this? Just look at the *restlessness* all around you. That's the key. The dissatisfaction and restlessness we feel is the key. We're like caterpillars ready to

metamorphosize into butterflies, to burst forth together into the New Age. After all, you can't seek fulfillment if you're fulfilled! Do you think it is a coincidence that coincidences are happening more and more frequently?

...the Manuscript says the number of people who are conscious of such coincidences would begin to grow dramatically in the sixth decade of the twentieth century. He said that this growth would continue until sometime near the beginning of the following century, when we would reach a specific level of such individuals--a level I think of as a critical mass.

I'm not sure but I think he meant to say the *seventh* decade, not the sixth. The sixth decade of the twentieth century would be the 1950's. Nobody seems to think that the '50s were a time of restlessness. The sixties, however, has entered historical consciousness as a very restless period: the Vietnam War and the anti-war movement; marijuana and LSD, the Civil Rights Movement, assassinations of the Kennedy brothers and Martin Luther King, the Beatles, etc. In any case, the novel has some good advice. Make love, not war. Be neither intimidator, interrogator, aloof nor pitiable. We don't need fear, humiliation, guilt or shame. Contemplate, meditate, and follow your intuitions and dreams as you go through your spiritual evolution. Fact or fiction, it doesn't matter. Truth is what you make it. Life's too short and too complicated to deal with reality. Make your own reality. [Subjective validation](#) and [communal reinforcement](#) lead to bliss.

This New Age subjectivism and relativism encourage people to believe that reality is whatever you want it to be. The line between fact and fiction gets blurry and obscured. Of course, fiction has its place in a satisfying life, but so should fact. The methods of science may not be perfect, but when it comes to getting the facts straight, they are better than any of the methods developed by New Age gurus.

See related entries on [A Course in Miracles](#), [Jean Houston](#), [Rama](#), and [Ramtha](#).

further reading

[reader comments](#)

- [Why I Hate the Celestine Prophecy](#) by Kenneth Moyle
- [The Celestine Vision](#) Redfield's own Home Page
- [The Celestine Prophecy Home Page](#)
- [The Celestine Prophecy - The Nine Insights](#)



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[Edgar Cayce](#)

[cellular memory](#)



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A Course in Miracles

All you need is love....love is all you need.
--the Beatles

A Course in Miracles [ACIM] is the name of an allegedly [channeled](#) book dictated by [Jesus](#) to [Helen Schucman](#) (1909-1981), "a highly respected research psychologist." ACIM is Christianity Corrected of its Errors. Jesus wants less suffering, sacrifice, separation, and sacrament, and he wants more love and forgiveness. To many Christians, this is not Christianity corrected, but true Christianity.

ACIM is also a minor industry. To find out what Jesus really had in mind when he came to save the world, you can buy the channeled book or one of a dozen or more similar books, or audio and video tapes, through [ACIM.org](#). About 1.8 million copies of *ACIM* have been sold worldwide since 1976. *ACIM* is now available in ten different languages.

At [MiracleCenter.org](#) one can sign up for a study group or conference, or join in a discussion group. [The Foundation for A Course in Miracles](#) has an [Academy](#) where you can get the Holy Spirit to help you understand the real message of Jesus and then return to your everyday life situation with a deeper appreciation for the difference between appearance and reality, illusion and truth. The Academy is now known as "The Institute for Teaching Inner Peace Through A Course in Miracles" (ITIP).

Why should anyone believe that the words of Helen Schucman are the words of Jesus? She was a clinical psychologist by training (Ph.D. 1957 from New York University). She claims that from 1965-1972 an inner Voice dictated to her the three books which comprise ACIM. She was assisted in her work by a colleague, [William Thetford](#) (1923-1988). In 1972, another psychologist, [Kenneth Wapnick](#), assisted Schucman with her work. Later, Wapnick's wife Gloria would offer her assistance. The Wapnicks are the ones who started FACIM.

To the tremendously numinous question, *Why is it called "A Course in Miracles"?* the answer is that that is what the Voice told her to call it. According to those who should know, the Voice said unto Helen: "This is a course in miracles, please take notes." According to Joe R. Jesseph, Ph.D., Coordinator, [Miracle Studies](#),

Essentially, in ACIM, the term "miracle" refers to that change of mind that makes it possible for the Love of God

to be somehow expressed in the world. This expression of love is referred to as forgiveness in the Course and it is reasonably accurate to say that the miracle spoken of in the Course (and indicated in its title) is forgiveness.

ACIM got a big boost when [Marianne Williamson](#), one of America's most popular New Age spirituality writers, began promoting her version of it in the 1990s. Williamson might be called Oprah's patron saint. She's all about love and healing, [yin and yang](#), being wounded, and using love and [prayer](#) to heal all wounds. *A Return to Love: Reflections on the Principles of A Course In Miracles* (1992) was number one on the Publishers Weekly non-fiction best-sellers list for eleven weeks. Williamson promoted her book and *ACIM* when she appeared on the Oprah Winfrey Show, an episode that received more pro viewer mail than any other show for 1992. She also plugged the book and the course when she was interviewed by Barbara Walters on the ABC television news show 20/20.

The teachings of *ACIM* are not new. They have been culled from various sources, East and West. That does not make them false or worthless. But to claim that they were dictated by someone who has been dead for 2,000 years is a bit much to swallow. Maybe Schucman was imitating Moses who probably said to himself "They'll never believe a schmuck like me unless I tell them I'm just passing the word from on High." Frankly, I am much more sympathetic to the approach of a [Leo Buscaglia](#) (1924-1998), another psychologist who taught love and forgiveness, but who took responsibility for what he claimed and seemed to say: *This is what I've learned; take it or leave it.*

See related entries on [Edgar Cayce](#), [The Celestine Prophecy](#), [channeling](#) and [Ramtha](#).

further reading

[reader comments](#)

- [Why ACIM is not Christianity and why some Christians oppose ACIM](#)
- [More Christian rants against ACIM](#)
- [More Christian rants](#)
- [The Watchman Fellowship on ACIM](#)
- [A modern Miracle Or: The ruthless logic of A Course in Miracles](#)
Anton van Harskamp, Bezinningscentrum Vrije Universiteit
Amsterdam
- [A Course in Miracles and Christianity: A Dialogue](#)

[Gardner, Martin. *Weird Water & Fuzzy Logic* : More Notes of a Fringe Watcher](#) (Prometheus 1996).

Gardner, Martin. "Marianne Williamson and 'A Course in Miracles,'" *The Skeptical Inquirer*, Fall 1992.

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Jean Houston and The Mystery School

"As we encounter the archetypal world within us, a partnership is formed whereby we grow as do the gods and goddesses within us." -- Jean Houston

**"She sees through those who are charletans [sic] and hucksters, ripping people off with New Age drivel or playing on fear instead of engaging in loving play."
--The Hon. William R. Bryant, Jr., Republican Leader Emeritus, Michigan House of Representatives**

"We only have these times we're living in." --[Kate Wolf](#)

Dr. Jean Houston's *Mystery School* is another in a long line of New Age self-help or personality transforming programs. According to Dr. Houston, "the purpose of the Mystery School is to engender the passion for the "possible" in our human and global development while discovering ways of transcending and transforming the local self so that extraordinary life can arise!" Her premise is that we are all unhappy because we have suffered and have not achieved our full potential. Here is an excerpt from Houston's Mystery School Lecture One:

Regardless of how difficult and estranged your life may have been, you've done that one. You've done estrangement. You've learned from it. You've done difficulty. You've even done derangement probably. You've done angst and anxiety and existential dread. You've done toxic mayhem. Yes? You've done breakdown. Now it's time to try the next level.

You've had all this suffering. Great! It has given you a wealth and depth of experience and compassion, if you frame it that way. If you don't frame it that way, then all you've got is galloping angst.

Your energies, your powers, your stamina, your moral force seem limited only because you and your habituations and the habituations and expectations of your culture set limits. Therefore, what Mystery School tries to do here, is to go beyond the limits and create a consensual reality in which the horizon of the limits is greatly expandable and More becomes possible. (Note: this lecture used to be available free online; you may now order it for \$140 from JeanHouston.org)

The lecture only gives a glimpse of what is in store for the disciple on the road to self-transformation. On her hook is some common New Age bait: the pain, suffering and dissatisfaction with life that needs to be relieved. Houston tells her listeners: "You've been wounded up the gazoo. I always say - 'You're so full of holes from being so wounded, you're holy.' You're utterly available now." She speaks again and again to the pain and suffering of her audience, of their dissatisfaction with their lives. She tells them that this is necessary for the transformation, that out of the evil she will bring good. Hers is the true way to the New Resurrection.

As New Age self-realization plans go, the Mystery School must seem a bargain. On the WWW for only about \$200 you can get the lessons, which include nine "sessions" of edited transcripts of the Mystery School. Each written lesson promises to be the length of a small book. In effect, you are paying about \$22 a pop for chapters of a work in progress.

Here is Jean's own blurb on her Mystery School

It is my 20th Century version of an ancient and honorable tradition, the study of the world's spiritual mysteries. Once upon a time there were such schools in Egypt, Greece, Turkey, Afghanistan, Ireland, England, France, Hawaii, India, China, Japan and many other places on the globe. We harvest what is available (or can be imagined) of the knowledge and traditions, rites and rituals of these ancient studies, imbuing them with new realities and applications in order to live more freely and more fully.

Mystery School is intellectually vigorous, psychologically challenging and spiritually demanding . . . It is celebrational and transformational. It is also frequently hilarious and zanily satiric.

Mystery School is both experiential and experimental. I weave together the things I love most: sacred psychology, music, history, theatre, cultural wisdom, science (fact, fiction and fantasy), neurophysiology, philosophy, anthropology, theology, poetry, laughter, cosmology, metaphysics and innovative ideas to provide a multi-faceted, multi-level Time out of time.

Exercises include psychophysical work, psychospiritual exploration, creative arts, energy resonance, movement and dance, altered states of consciousness, ritual and ceremony, high drama, high play and mutual empowerment.

She claims that her school is part of a tradition that has probably existed ever "since humans have been humans." This claim seems to imply that the mystery schools have made very little progress. There is ample evidence she is correct about that. The reason for this is obvious: mystery schools don't exist to discover the mysteries of life, but to encourage *belief* that life is a mystery. The only thing they transform is the mind, not by providing a better understanding of reality but by encouraging people to create their own reality. Mystics are warriors against the world and their weapons are the weapons of the imagination. They are enemies of reality. Rather than engage the world they despise, rather than try to change the world, they withdraw from the world and turn the world into an idea and they play with that idea until the game is to their liking.

According to Houston, "The traditional question of all Mystery Schools is - How do you place the local self, your local historical self, in the service of the Self? How do you place it in the psyche where the Immanent God resides? How do you respond to the Lure of Becoming and keep up sufficient energy, passion, momentum, delight, engagement, fascination, that you agree to be constantly lured? Unfortunately the stuff of everyday life often inhibits the Lure." In short, how do you become one with God and how do you avoid the snares distracting you from this divine union? There's nothing new here in terms of goals. The goal is the goal of all ecstatic mysticism: how to escape the world into transcendent glory.

Still, one wonders why, if all the schools she mentioned have failed to get beyond the beginning of comprehension, what makes her think her school will be any better? She may be right in saying that her Mystery School is intellectually vigorous. Maybe it's even more intellectually vigorous than the ancient schools of Egypt, Greece, etc. But what superior methods, what New Age weapons, has Jean Houston got that will at last allow deliverance to those lured by the desire to transcend all that they can be? How will she succeed where so many others have failed to unlock the secrets of the universe and provide a sure path for those who are so full of potential, who are striving so hard to burst forth and transform into something wonderful, something great, something celebrational, transformational, empowered? The only way to find out for sure is to pay your money and go to school. In the meantime, we can inquire into the history and mythos of Dr. Houston herself.

Jean Houston would probably be just another successful New Age motivator had not Bob Woodward in *The Choice* let the world know that she met with Hillary and Bill Clinton, and that Hillary had imaginary "conversations" with Eleanor Roosevelt and Mohandas Ghandi. Woodward also notes that in the past Houston had been known to use LSD and hypnosis to help her clients converse with the great personages of the past. However, neither drugs nor hypnosis were used with the Clintons, according to Woodward.

There is nothing particularly weird about imaginary conversations with the dead (or with the living, for that matter). In fact, such a practice could be

beneficial, if not enlightening. Steve Allen did a wonderful book and television series where he brought together for conversation groups of four historical persons from different eras. Many of the best writers and thinkers who have ever lived have had many imaginary conversations with dead people. It is a wonderful way to explore ideas, to vivify notions, to think.

It seems unfair to compare Hillary Clinton with Nancy Reagan, as some in the media have done, comparing Houston to the psychics and astrologers the Reagans consulted. Houston is no astrologer. Nor does she claim to be psychic, yet that is how *Newsweek*, *the Sacramento Bee* and the CBS evening news referred to her. An AP story ambiguously referred to her as a "psychic researcher."

Jean Houston is a Ph.D. in philosophy of religion from Columbia University, according to *Newsweek* (July 1, 1996). According to the *Washington Post*, she has a Ph.D. in psychology. In an interview with Stone Phillips of NBC's *Dateline* she claimed to have several doctorates but was most proud of the one in psychology from Union Graduate School. Off camera she admitted that this is really the only doctorate she has. She said she made a mistake and blamed it on something like overwork or stress, but it seems obvious that she lied. She might forget how many doctors she has, but not how many doctorates. How much of her biography is lie? or "mythos," as she might call it? Was she really chums with Einstein and Teilhard de Chardin? Was she really Margaret Mead's adopted daughter? Did she really meet and get the inspiration for her primary teaching method from Edgar Bergan and Charlie McCarthy when she was eight years old? It should not surprise anyone if it turns out that Jean Houston's autobiography is a piece of fiction, a heroic myth spun by her imagination out of the fabric of her desires. She is one of the New Age philosophers for whom "deep" truth is something you create. In fact, she sounds like the perfect political advisor! She expressed her concern to Phillips that she would lose business because of the bad press. I doubt it. If anything, her business will probably expand exponentially and demands for her mystic presence will most likely come to exceed even her Athenic potentiality. The only thing that might hurt her is her lying. Americans will tolerate lying for God and Country, or about sex, but are a bit harder on those who lie for greed or self-aggrandizement. If, indeed, it turns out that Jean Houston is a congenital liar, there will be the inevitable cynics who will claim that Bill or Hillary is Jean's guru, not the other way around. They would be wrong, of course.

In any case, Houston is certainly a prolific author. She is also past-president of the Association for Humanistic Psychology, director of the Human Capacities Training Program, and ran [The Foundation for Mind Research](#) out of Pomona, New York, where she and her husband, Robert Masters, tested the ESP of subjects under the influence of LSD or psilocybin. Houston is also on the editorial board of the *Journal of Mind and Behavior*. She offers distance learning courses through the [Entelechy Institute](#). The titles of some of her

books reveal something of the author:

Beloved
Godseed
Lifeforce
Mindgames
The Hero and the Goddess
The Possible Human
Odyssey of the Soul
The Search for the Beloved: Journeys in Sacred Psychology
Listening to the Body (co-authored with Robert Masters)
The Varieties of Psychedelic Experience (co-authored with Robert Masters)
Psychedelic Art (co-authored with Robert Masters)

In her books and lectures she frequently aligns herself with the Great Traditions. "In all the great traditions - Christian, Buddhist, Hindu, Sufi, Jewish - it's all about waking up. Mystery School is essentially about the wake up call from Central and putting you not in attunement with it, but in alignment with it. You can always tune, but alignment is forever." This distinction between a tune up and an alignment may seem profound in context, but out of context it is obviously false. Alignments are no more forever than tune ups are. You can go out of alignment as easily as going out of tune. She calls fundamentalists "Fundis" and she likes metaphors that have proven successful in similar eclectic transformational endeavors by [L. Ron Hubbard](#), [Richard Bandler](#), [Werner Erhard](#), [Frederick Lenz](#) and [Tony Robbins](#). For example, she says that her Mystery School "provides practices which have the effect of both rewiring your brain, body and nervous system, and eliciting the evolutionary latencies in your physical instrument. These latencies have been there like a fetal coding for perhaps tens of thousands of years, but could not be activated until various aspects of complexity emerged, joined to crisis. We find that emergence generally only occurs in emergencies. It's only when you really have to survive that you really turn on enough mindfulness and wakefulness to activate these different latencies."

What Jean Houston has done is create her own mythos. She has probably gotten enough [communal reinforcement](#) to encourage her to believe in the reality of her mythos. Like so many others in New Age movements, she seems to find the distinction between myth and reality a hindrance to the truth. For their view of truth is entirely subjective: truth is whatever you want it to be.

You . . . are probably at this point every race that ever was, as well as every species, as we know from the development of the brain that contains most of the species coded in us. . .

.

Once you start living out of that Depth Life, you're living a Mythic Life and life gets very juicy!

"Body/Being/Blissing. Bodying/Blissing/Beingness. You are in it. You are in the utter Suchness of it, and you have lost the great divide." You need the divide only when you're driving. You don't need it when you're cooking.

...you have within you not only all the evolutionary past, but another reality altogether, a depth reality. . . . It is the great creative archetypal realm: hyperspacial, hypertemporal, but co-existent with consciousness in some way. The Depth Realm, the realm of gods, goddesses, angels, numinous borderline persons, creative principles, archetypal patterns.

You are the mystery, and the job of the Mystery School is to school you in your own depths.

The problem is that when we lost myth, we lost the rest of the story. We got stuck in television

I knew all these things and more....once upon a time.

further reading

[reader comments](#)

- [JeanHouston.org](#)
- [Jean Houston](#)
- [Of Butterflies and Essence](#)
- [An Interview with Jean Houston](#)

[Gardner, Martin. *Did Adam and Eve Have Navels?: Discourses on Reflexology, Numerology, Urine Therapy, and Other Dubious Subjects* \(W.W. Norton & Company, 2000\).](#)

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Last updated 12/30/01



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[L. Ron Hubbard](#)



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reader comments:

The Celestine Prophecy

18 Mar 1998

I hope you don't mind an unsolicited email, but I just finished reading your piece on the Celestine Prophecy and I wanted to write a quick note thanking you. I must have sounded like a Southern Baptist with my shouts of "amen" and "preach on" as I read it. There were more than a few raised eyebrows among my co-workers. As soon as I was done reading it through I printed it off and waited anxiously for lunch so I could run a copy to my partner.

The fact is I was spending a lot of time today on the web looking for information on James Redfield (it's spring break here at IU-Bloomington where I work so things are a bit slow in the office). I'll explain why I was looking for such information in a moment.

I've been active in various progressive issues since I was 18. Most of my energies have been devoted to various labor and environmental issues. Currently I am going back to school for a second degree (in GIS) and I've found myself working closely with a great group of people who focus on our public forests. This organization serves as an umbrella group for a wide variety of grassroots activists throughout the central hardwood region. In June of this year we are having our annual meeting, down in the Smokeys, and I just discovered that James Redfield is going to be the keynote speaker.

Now, another member of this group has been a friend of mine for years. She is a very intelligent, caring and valued friend. Her advice, assistance and friendship have meant a great deal to me over the years. Some time ago she came across the Celestine Prophecy. She loved the book and wanted all of her friends to check it out as well. She knew a group of us were headed down to Kentucky for a backpacking trip and she encouraged us to take along her copy for campfire reading.

Well, that particular trip was the worst of my life! We ended up getting hit hard by a freak storm. One of our tents was demolished during the deluge and we ended up spending a miserable, freezing, water-logged night under a makeshift shelter. Somewhere around 3 a.m. the rain lightened up enough for my partner to decide we could all do with a nice fire. The only thing that was dry, however, was the Celestine Prophecy. I was thankful for James Redfield at least that night.

We replaced the book when we got back to town and have tried to avoid any deep discussions about Redfield's "ideas" with our friend. The fact is, who hasn't bought into fuzzy-thinking at one (or two) times in their life? I didn't want to appear judgmental, and I certainly didn't want to upset a dear friend. So, I kept my opinions to myself (normally, not an easy task for me).

But now my friend is very excited that James Redfield is coming to address a major meeting of hundreds of environmental activists. Why we are not having a speaker address the issues of zero-cut, or the role of multinational corporations in our society, or the effect of GATT, NAFTA and MAI on the environment, working people and democracy in general, I do not know. Instead, we have an astrologer who wrote some very bad prose and apparently has some nebulous connection to a few "green" organizations.

*So, I've decided to find out what I can about this fella and make sure the tools in my skeptical toolbox are in good repair. Your **Skeptics Dictionary** has been a fantastic resource. Sorry to go on an on, but I wanted to know you've really brightened up the day of this Hoosier Skeptic! I send my best wishes to you and yours.*

Todd Barnell

reply: There seems to be a trend among "leaders" to invite astrologers, psychics, spiritual novelists, etc. to speak to "followers" and "workers". I suppose the idea is to inspire the troops. James Randi wrote recently about Lucent (formerly Bell Laboratories) inviting a paranormalist to inspire their scientists. I'd be worried if my scientists were inspired by James Van Praagh or James Redfield.

14 Apr 1997

*I think that you have clearly missed the message of the **Celestine Prophecy**. If you really would give it an honest chance you would find that these insights are truly just a guide. The meaning of life isn't the same thing for everyone. This book is not leading up to one worldwide solution. This book inspires people to think for themselves and to find their own personal meaning of life. You are entitled to your opinion but I firmly believe that no harm can come from this book if it is understood correctly.*

Michelle McGonnell

reply: I agree that people find the meaning of life in a variety of ways, including science fiction and fantasy literature. If the Celestine Prophecy inspires people to think for themselves, then I have misjudged the book completely. If, on the other hand, you think that disregarding facts in favor of fiction and fantasy is "thinking for oneself," then I stand by my original evaluation.

25 May 1998

I am writing in regards to your skepticism towards The Celestine Prophecy. I am an adolescent, who is constantly struggling to survive. My goal is to create a clearer picture of who I am in this society we have made. This picture is added to and given more depth as I encounter different people and situations in my life. I choose what to admire and what to frown upon, who to follow and who to guide. These are decisions that I, along with everyone else, wake up in the morning pondering.

Just like religion, it is suggested to many of us, to follow a leader, or their ideas on life. So too, is The Celestine Prophecy. If you read the book, looking for guidelines to criticize, you will have found them. However, if you were looking for an alternative suggestion to dealing with this confusion we live in, and hope to come out alive, then you might begin to understand where James Redfield is coming from.

The Celestine Prophecy opened my eyes to a beauty that I had never seen before. This was an indescribable beauty that could only be seen through an open mind. My life has been changed since reading this novel for reasons that you, a skeptic, will find empty. I'm not sure what proof I can offer you, except for the fact that I am not a weak person looking for guidance from a stranger. I am a proud, strong willed, open-minded teenager. I pity those adults, who have not yet realised that maybe science is just a theory and theories may be wrong.

I do appreciate you giving me the opportunity to voice my opinion. I'm sorry if I've insulted or offended anyone along the way. My bottom line, however, is that maybe you're a little to quick to judge us who see auras as delusional. My good sir, instead of opening your eyes to the hate in our world, open your eyes to the beauty that is left.

Sincerely,

Meghan Edmonds - Age 15

British Columbia, Canada.

reply: Your letter is very touching. I am glad that you have found truth and beauty in this novel. I wasn't much older than you are when I felt the same way about Kahil Gibran's The Prophet. I still open my eyes to the beauty in the world, but I no longer see it in this book.

19 Jul 1998

I understand your skepticism, I truly do. I, too, am a skeptic of anything that seems to make sense or challenges me to feel happy and blissful. How can we not be skeptical, having been raised in a society where the key to happiness is only an infomercial away? And upon entrusting our faith and our soul (not to mention our pocketbooks) to such gurus, we soon find ourselves crashing down

from this high, a little lighter in the wallet, and a lot more anxious than we were before.

The Celestine Prophecy, however, does none of those things. In your own writing on the topic, it is quite easy to see (for someone who is looking), that there is perhaps a part of you that wants to believe in such things. Your eloquent and detailed account on the state of the world, on the violence and hatred and scheming and lies, could not have been written by someone purely poking fun at the idea. You know that the world is not utopia. You know that something has to change in order for civilization as a whole to move forward, to survive at all, for that matter.

For argument's sake, what if it is the Celestine Prophecy? What if all we have to do is focus on our energies, on our surroundings, on ourselves to be happy? Of course, it's simplistic and childlike. Ever wonder why children are basically inherently happy?

This book is not meant as a bible. The nine insights are not commandments. They are simply ideas meant to stimulate thought and examples as to how each of us, personally, can obtain a feeling of peace and happiness in our lifetime, and how we can help others to feel peaceful and happy. It is a message for our times, and really, it doesn't call for any sort of skepticism. Not only doesn't it ask you to purchase any products or ask for tithing in order to obtain this underlying sense of peace, but it doesn't demand that you live by a stringent set of guidelines - it's different for each individual.

Look at the world around you. Reread the book. Ask yourself if any of the messages in it help you to make sense of what is going on in the world around you. Don't believe that we'll pay each other for insights in 500 years - that's not the real point of the book, as I think you know. The point is that it is possible for humankind to be decent and loving to one another, if each individual takes the time and makes the effort to better his own outlook and existence.

Robin Page

reply: Of course I do not object to love and peace, decency, etc. However, I don't think we need James Redfield's added metaphysical baggage to promote those things.

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reader comments:

cellular memory

28 Oct 1999

A speculation for the cellular memory page. As you will notice from my e-mail address and my signature line, I work for the National Marrow Donor Program. As such, I'm familiar with the business of bone marrow transplantation (BMT) using unrelated donors. It's known in the BMT community that a donor's allergies can be transferred to the marrow recipient (see citation, below). Some marrow recipients also say that their food preferences have changed post-transplant, but this has not to my knowledge been reported in the medical literature. You speculate that the origin of the cellular memory belief may be the chitlin joke told in 'Brian's Song' or in L. Ron Hubbard's 'engrams.' May I suggest that a more likely origin may be the allergy transfer phenomenon I refer to?

Now, a bone marrow transplant is much different from a solid organ transplant, because in a marrow transplant one is in effect transplanting the entire immune system of one person to another, so it's not surprising that allergies are also sometimes transferred. An in any event, this phenomenon is much different from the idea that transplanted organs contain the coding of life, but since you are speculating about the possible beginnings of this wacky idea, I suggest that this phenomenon encountered in BMT may be a more likely starting point.

Reference:

*Agosti JM, Sprenger JD, Lum LG, et al. Transfer of allergen-specific IgE-mediated hypersensitivity with allogeneic bone marrow transplantation. *N Engl J Med*, 1988; 319(25): 1623-28.*

Tim Walker

**Medical/Scientific Writer National Marrow Donor Program
Minneapolis**

08 Oct 1999

If you're looking for a film source for such things, you can go back much farther, to "[Mad Love](#)" aka "[The Hands of Orlac](#)", starring Peter Lorre. In it, the insane Dr. Gogol (Lorre) transplants the hands of a murderer onto pianist Stephan Orlac (Colin Clive), and convinces Orlac that the murderer's

personality is taking over. Orlac finds that he has abilities he never had before -- such as knife-throwing -- related to the murderer's profession.

James Redekop

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reader comments:

pyramid schemes

04 Jan 2001

Thanks for an excellent and truly informative site.

A few years ago, the government of Sali Berisha in Albania ran a pyramid scheme which many Albanians invested in. The scheme subsequently collapsed driving the a large section of the populace into abysmal poverty, indirectly provoking the unrest which led to Berisha's fall. It is important to note that this pyramid scheme was part of a larger criminal operation run by the Albanian government (and incidentally involving the Kosovo Liberation Army) which involved heroin smuggling, gun running, the smuggling of contraband and an extremely lucrative prostitution racket in nearby Italy. Pyramid schemes are not only illegal, but also tend to be run by hardened criminals.

However, the gullibility of the public, and especially those in dire financial straits, is almost bottomless. In my country, South Africa, there is currently a con man who fleeced thousands of investors of their hard earned money by means of a pyramid scheme. However, it has turned out that his most ardent supporters during his trial were precisely those who had lost all of their money. In fact, his level of support was such that he actually went on to launch a small political party!

Eric Goodwin

reply: Go figure. I suppose, in part, denial is a matter of saving face and partly a matter of trying to sucker others into making the same mistake with you that you made with others.

4 Jan 2001

In your reply to a letter posted on 1/4/2001, you express some surprise at the fact that some people still support the scammers who took all their money in pyramid schemes.

Actually this is not a rare occurrence at all. As the (excellent) antifraud web site www.quatloos.com shows, it is more a rule than an exception. Almost every financial scam has its "true believers" - the original Mr. Ponzi included (irate investors almost lynched the cops when they came to arrest Ponzi for fraud.)

An extreme example of such behavior is at:

<http://www.quatloos.com/cm-omega/cm-omega.htm>

It has to be seen to be believed. Not only did the scammers in this case sell the "lenders" (investors) worthless bonds called "Omega", but EVEN AFTER "Omega" didn't pay one cent, they managed to get the SAME people to sign up to another identical scam called "Destiny". When that scam didn't pay out one cent either, they STILL got the SAME people to invest in what they called "refund units" for their original Omega "investment" - e.g., sending the same scammers MORE money on the promise that THIS time they will get their money back. Currently, the same scammers are trying to raise yet more money from the scammed - this time, to contribute to the main scammer's defense fund (he was finally arrested and charged with fraud.)

How on earth can some people be so stupid as to be scammed again and again and again? www.quatloos.com have their opinion:

"The promoters of Omega chose well in their victims, being either fundamental Christians who "keep the faith" no matter what, or New Agers who are so stupid that they will believe in anything (Omega today, pyramid power tomorrow!)."

This choosing of victims is not, of course, limited to the crooks in Omega. As Allen Henderson says in his book, "How Con Games Work", religious people are prime targets for scams. Scammers take advantage of religious people's capacity for blind faith and their trust in the authority of their clergy. They know that all they have to do is to get the community's local religious leader scammed, and they have it made:

"Ironically, the very qualities that distinguish [Mormons] as fine, upstanding citizens proceed to be their financial downfall at the hands of con artists. Because they were religious, law-abiding and community- and church-oriented, they tended to be sheltered and trusting... if the preacher [who was scammed] said yea, who were they to say nay?"

This is food for thought, for those who think that there is no downside to religious beliefs and new-age wackiness.

Avital Pilpel

08 Nov 2000

Hi, I am really puzzled. I was approached by a friend to join a "Gifting Club" which I immediately recognized as a pyramid scheme. I warned my friend to avoid this. I even found many sites on the web that explained these scams and warned against them. Well, My friend didn't listen. She got involved for 5000.00 as did her daughter and many other family members that I know well. I warned

them all. The amazing thing is that within a very short period of time she and several family members all made a lot of money as promised. They were paid amounts ranging between ten and twenty thousand. I saw the cash. Now I look like a chump to them and they are having a good time gloating. I don't understand. I know this shouldn't work and I understand why it is a scam. Everything I've read says that at best a few people get paid but most lose their money. However, so far I have seen at least 7 people get paid big money. In fact, everyone that I know that got in on the deal got paid and they tell me they have witnessed several others get paid substantial amounts of cash at their weekly "birthday" parties where the people get together to watch others get their money. I'm not thinking of joining. I still see it as a scam but I'm sitting here looking like a chump to them and, quite frankly, feeling like one. What gives? Any ideas that would explain why this is working even though it shouldn't? I would appreciate your comments.

Louis

reply: Give it time. What they're doing may be violating state law and is violating federal law if they don't plan to pay taxes on the money. They can call it a "gift" but the IRS will recognize it for what it is and want its share. If they give the money with the intention of getting more money in return, the IRS will not consider their behavior "gifting." Many people will get burned down the line and some are bound to report the scheme. You were wise to stay out of it.

read the following response:

13 Nov 2000

This is in response to Louis and the money his friends are receiving, just wanted to let you know that a friend of mine tried to get me into a pyramid scheme years ago, and also showed me lots of money that he had received from it. As it turns out, he had received no money from his venture, but he had showed me the cash in order to induce me to join, since if no one signed up after him, he would surely loose all of his money. I always wondered that if it was such a great deal, why the people who do get money don't just put it all right back in under their children's (or other relatives) names, and really make a lot of money.

Rob

9 Aug 2000

My name is David Brookshier and I find your website outstanding. I receive at least 3 chain letters every week and a few pyramids as well. Of course the get rich quick systems are to good to be true. Real businesses don't start out rich I know I am attempting to run my own photography business and it's hard. I have also lost all of my patience with fraudulent people I don't have time to sift

through 5 billion pieces of worthless mail get rich quick schemes. After visiting sites of the BBB and Us postal inspection I now can stop these con artists from sending me their junk. I now can tell any cons I come in contact with "Thank you very much for the great system you sent me, unfortunately I believe only in hard work and actually earning my money by the way I have sent your fraudulent info to my local postal inspector, have a nice day." Please tell the readers of your website to do the same with any con mail they receive so that the authorities can track them all down as recommended by the US postal service turn in any fraudulent schemes to your local post office inspector and crack down on fraud.

sincerely,
David Brookshier

17 Mar 2000

I noticed in your Ponzi Scheme listing that Social Security was not mentioned.
S Ruth

reply: Good observation. I don't list insurance companies, either. Anyway, I think Social Security is only something like 80% a pyramid scheme. Remember, if the government steals or gambles it's ok because they make the rules.

22 Aug 1997

Dear Critic,

I found your page after I searched "pyramid scam" in Yahoo. I read the whole thing. Thank you for writing all that. I didn't know the file Winca\$h was a pyramid scam, or what a pyramid scam was. I downloaded the file from the millionth page I saw it posted on. None of the other links worked--I didn't know why. I read the instructions and thought it sounded great. I sent out my \$5, which makes me a victim to some, and posted the file on LOTS of online message boards like the instructions said, which also makes me the criminal, even though I had no idea. Then someone who owned one of the message boards said it was a scam and such and I didn't believe him because the file states the exact postal lottery laws which make it legal. More and more people I talked to told me it was illegal and I got scared. I'd even made a websight to get the file out. After I read your page on pyramid schemes I quickly deleted the file and the page from my directory at Geocities. But it's too late. I've already posted my name and the file and everything on lots of BBS's, even a websight that gets many hundreds of hits a day. And my address is in the file. I wish I

would've read your file sooner. I'm just a kid, almost 14 and I'm afraid of going to jail. Well, thanks for having that page up so things don't get any worse than they are. I'd like you to mention WinCa\$h too. I thing that's the biggest one out there.

PLEASE DO NOT MENTION MY NAME OR ADDRESS ON YOUR PAGE!!!

Thanks again.

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['Pyramidiot' earning new accolades By Dana Bartholomew](#)

pyramidiocy

Pyramidiocy is characterized by having an outlandish, farfetched theory about the origin, nature or purpose of the Egyptian pyramids. The theories of pyramidiots are barely supported by slender threads of evidence. They serve little purpose except to stand as bad examples of speculative thought and fanciful imagination.

Some pyramidiots, such as [Erich von Däniken](#) and [Zecharia Sitchin](#), claim that the ancient Egyptians were too backwards to have constructed the pyramids without the help of [extraterrestrials](#). [Edgar Cayce](#) claimed that beings from [Atlantis](#) helped the Egyptians build the pyramids by showing them how to levitate stones. Charles Berlitz claimed that Atlantis lay beneath the [Bermuda Triangle](#) and had a pyramid the same size as the Great Pyramid at Giza.* Pyramidiots think Atlantis is the link between the pyramids of Egypt and the pyramids of Mexico. They are not dissuaded by the fact that the one was primarily funerary while the other was primarily used for ceremonies, including some which involved human sacrifice. Arguments demonstrating that the ancient Egyptians or Mexicans were intelligent and resourceful enough to build pyramids are to no avail.

Other pyramidiots ascribe super technological or paranormal powers to the ancient Egyptians. Traditional explanations in terms of religion, tombs for pharaohs and their families, belief in immortality, slave labor or paid workers, slipways, canals, etc. are rejected by pyramidiots in favor of theories claiming that the pyramids were [power stations](#) or [water pumps](#).

Some pyramidiots claim that the pyramids were built according to some sort of [mystical numerology to contain coded messages](#). Some believe that the Great Pyramid at Giza is at the [center of the world](#). Some think the pyramids are a [map of the heavens](#). Mystical [mathematical notions](#) about the pyramids [abound](#). Some believe [only God](#) could have designed such a [numerical mystery](#). Still others have believed that [razor blades could be kept perpetually sharp](#) by being placed under a pyramid of the same proportions as the Great Pyramid at Giza (by focusing cosmic energy and realigning crystals in steel!). That almost anything in the universe can be found to have interesting mathematical proportions or be related to several interesting mathematical formulae is of little interest to pyramidiots.

Some pyramidiots think [pyramids have healing power and are foci of spiritual energy](#). That there is no evidence for such beliefs seems to cheer rather than dishearten pyramidiots.

further reading

reader comments

- [Internet Bunk: The Pharaoh's Pump Foundation](#)
- ["Pyramids, Pyramyths & Pyramidiots"](#) by Barry Williams - Australian *Skeptic*
- ["Secrets of the Pyramids"](#) by Paul B. Thompson
- [Pyramidiots](#)
- [Chariots of Lies: Did aliens really build the Pyramids?](#) from Paul Willis
- [Pyramid Schemes: A Brief History of the Mysterious Monuments](#) by D. Trull
- [Archeologists Dig Up Evidence of Brain Surgery on Pyramid Worker](#)
- [Flash! Fox News Reports that Aliens May Have Built the Pyramids of Egypt!](#)
- [Opening the Lost Tombs: Live From Egypt](#)
- [EXCAVATIONS AT GIZA 1988-1991 The Location and Importance of the Pyramid Settlement](#) by Mark Lehner, Associate Professor of Egyptology The Oriental Institute The University of Chicago
- [NOVA](#) explores the pyramids

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[New Age
psychotherapies](#)

[pyramid schemes](#)



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tantra

The tantra refers to certain Hindu and Buddhist scriptures, or the rituals and practices described therein. They deal especially with meditative techniques and rituals involving sexual practices.

further reading

- [Guhyasamaja-tantra](#)
- [The 14 Tantric Vows](#)

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According to a Gallup poll, belief in ghosts has increased from 25% to 38% over the last decade of the 20th century.

ghosts (poltergeists)

A **ghost** is the alleged [spirit](#) of a dead person. Ghosts are often depicted as haunting places, especially houses where murders have occurred. Why some murder victims would stick around for eternity to haunt a place, while others seem to evaporate is one of the great mysteries of existence better left to literary types to ponder. Most philosophers consider the concept of ghosts to be on par with that of [fairies](#).

A **poltergeist** (literally, a noisy spirit) is a noisy ghost. Poltergeists make their presence known by rapping sounds and are considered by some to be the first "rap" artists. These are the ghosts who like to cause disturbances by doing such naughty things as throwing furniture or pots and pans around.

Most nations have a love of ghost stories, but the [English](#) seem to be especially fond of their ghosts.

See **related entries** on [astral projection](#), [dualism](#), [haunted houses](#), [mind](#), and [near-death experiences](#).

further reading

[reader comments](#)

- [Richard Wiseman's](#) work (in The Skeptic's Dictionary Newsletter 7)
- [Palace ghost laid to rest](#) 29 March, 2001 (Wiseman's study of ghosts at Hampton palace)
- [Ghost Blusters](#) April 18th, 2001 (Wiseman's study of ghosts in Edinburgh castle)
- [Science wrecks a good ghost story](#) By Robert Mathews
- [The Ghost in My House: An Exercise in Self-Deception](#) by Bertram Rothschild, *Skeptical Inquirer*, Jan/Feb 2000
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- [The Haunted Valley InfoCentre](#)

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[geomancy](#)



[glossolalia](#)

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hystero-epilepsy & Dr. Jean-Martin Charcot (1825-1893)

Charcot was one of the founders of modern neurology. Students came from all over the world to study under him in Paris, including [Freud](#) in 1885.

Charcot used [hypnosis](#) as a diagnostic tool in his study of hysteria and influenced Freud's views on the origin of neurosis. Charcot made a number of important medical discoveries and even has a disease named after him ([neurogenic arthropathy](#) is also known as Charcot's joints).

At one point in his illustrious career, Charcot believed that he had discovered a new disease, which he called "hystero-epilepsy." The symptoms included "convulsions, contortions, fainting, and transient impairment of consciousness."^{*} He showed his students several examples of this new disease during his rounds at Salpêtrière Hospital.

A skeptical student, Joseph Babinski, decided that Charcot had invented rather than discovered hystero-epilepsy. The patients had come to the hospital with vague complaints of distress and demoralization. Charcot had persuaded them that they were victims of hystero-epilepsy and should join the others under his care. Charcot's interest in their problems, the encouragement of attendants, and the example of others on the same ward prompted patients to accept Charcot's view of them and eventually to display the expected symptoms. These symptoms resembled epilepsy, Babinski believed, because of a municipal decision to house epileptic and hysterical patients together (both having "episodic" conditions). The hysterical patients, already vulnerable to suggestion and persuasion, were continually subjected to life on the ward and to Charcot's neuropsychiatric examinations. They began to imitate the epileptic attacks they repeatedly witnessed (McHugh).

Babinski convinced Charcot that hystero-epilepsy was not a disorder and that doctors can induce symptoms in their patients. They separated the "hystero-epileptic" patients from each other and from staff members who had treated them. The patients were moved to the general ward of the hospital. The doctors then treated the patients by ignoring their hysterical behavior and encouraging the patients to work on their recovery. "The symptoms then gradually withered from lack of nourishing attention (McHugh)."

The lesson of Charcot seems lost on many therapists today, in particular the [trauma-search \(repressed memory\) therapists](#) who assume even before meeting their patients that they have probably been sexually abused, repressed the traumatic abuse and will suffer until the memories of abuse are brought to the surface in therapy. These therapists have no difficulty in finding patients who respond to their diagnoses and treatment, even though there is growing evidence that many of the memories of abuse that they elicit are [false memories](#).

See **related entries** on [false memory](#), [hypnosis](#), [memory](#), [multiple personality disorder](#), [psychology](#), [repressed memory therapy](#), [satanic ritual abuse](#), [New Age Therapies](#) and [the unconscious mind](#).

further reading

- [Multiple Personality Disorder \(Dissociative Identity Disorder\)](#) by Paul R. McHugh MD, Henry Phipps Professor of Psychiatry and Director of the Department of Psychiatry and Behavioral Science at the Johns Hopkins Medical Institutions in Baltimore
- [The Father of Multiple Sclerosis](#)
- [Trance and Trauma: Functional Nervous Disorders and the Subconscious Mind](#)

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News Item:

08/14/98, AKRON
BEACON JOURNAL

**ILLINOIS TO
DISCIPLINE
PSYCHIATRIST
ACCUSED OF
BRAINWASHING
PATIENT**

Illinois has moved to discipline a prominent psychiatrist accused of convincing a patient that she was a child molester, a cannibal who ate human flesh meatloaf and the high priestess of a satanic cult.

Depressed after the birth of her second son, Patricia Burgus sought therapy from Dr. Bennett Braun. Burgus says the doctor, through [repressed-memory therapy](#), led her to believe among other things that she

multiple personality disorder [dissociative identity disorder]

....students often ask me whether multiple personality disorder (MPD) really exists. I usually reply that the symptoms attributed to it are as genuine as hysterical paralysis and seizures....

--Dr. Paul McHugh

Multiple personality disorder (MPD) is a psychiatric disorder characterized by having at least one "alter" personality that controls behavior. The "alters" are said to occur spontaneously and involuntarily, and function more or less independently of each other. The unity of consciousness, by which we identify our selves, is said to be absent in MPD. Another symptom of MPD is significant amnesia which can't be explained by ordinary forgetfulness. In 1994, the American Psychiatric Association's DSM-IV replaced the designation of MPD with DID: [dissociative identity disorder](#). The label may have changed, but the list of symptoms remained essentially the same.



Memory and other aspects of consciousness are said to be divided up amongst "alters" in the MPD. The number of "alters" identified by various therapists ranges from several to tens to hundreds. There are even some reports of several thousand identities dwelling in one person. There does not seem to be any consensus among therapists as to what an "alter" is. Yet, there is general agreement that the cause of MPD is repressed memories of childhood sexual abuse. The evidence for this claim has been challenged, however, and there are very few reported cases of MPD afflicting children.

Psychologist Nicholas P. Spanos argues that repressed memories of childhood abuse and multiple personality disorder are "rule-governed social constructions established, legitimated, and maintained through social interaction." In short, Spanos argues that most cases of MPD have been created by therapists with the cooperation of their patients and the rest of society. The experts have created both the disease and the cure. This does not mean that MPD does not exist, but that its origin and development are often, if not most often, explicable without the model of separate but permeable ego-states or "alters" arising out of the ashes of a destroyed "original self."

A rather common view of MPD is given by philosopher Daniel Dennett.

possessed 300 personalities and sexually abused her children.

[Braun's license to practice in Illinois has been suspended.](#)

...the evidence is now voluminous that there are not a handful or a hundred but thousands of cases of MPD diagnosed today, and it almost invariably owes its existence to prolonged early childhood abuse, usually sexual, and of sickening severity. Nicholas Humphrey and I investigated MPD several years ago ["Speaking for Our Selves: An Assessment of Multiple Personality Disorder," *Raritan*, 9, pp. 68-98] and found it to be a complex phenomenon that extends far beyond individual brains and the sufferers.

These children have often been kept in such extraordinary terrifying and confusing circumstances that I am more amazed that they survive psychologically at all than I am that they manage to preserve themselves by a desperate redrawing of their boundaries. What they do, when confronted with overwhelming conflict and pain, is this: They "leave." They create a boundary so that the horror doesn't happen to them; it either happens to no one, or to some other self, better able to sustain its organization under such an onslaught--at least that's what they say they did, as best they recall.

Dennett exhibits minimal skepticism about the truth of the MPD accounts, and focuses on how they can be explained metaphysically and biologically. For all his brilliant exploration of the concept of the self, the one perspective he doesn't seem to give much weight to is the one Spanos takes: that the self and the multiple selves of the MPD patient are social constructs, not needing a metaphysical or biological explanation so much as a social-psychological one. That is not to say that our biology is not a significant determining factor in the development of our ideas about selves, including our own self. It is to say, however, that before we go off worrying about how to metaphysically explain one or a hundred selves in one body, or one self in a hundred bodies, we might want to consider that a phenomenological analysis of behavior which takes that behavior at face value, or which attributes it to nothing but brain structure and biochemistry, may be missing the most significant element in the creation of the self: the sociocognitive context in which our ideas of self, disease, personality, memory, etc., emerge. Being a social construct does not make the self any less real, by the way. And Spanos should not be taken to deny either that the self exists or that MPD exists.

But if thinkers of Dennett's stature accept MPD as something which needs explaining in terms of psychological dynamics limited to the psyche of the abused rather than in terms of social constructs, the task of convincing therapists who treat MPD to accept Spanos' way of thinking is Herculean. How could it be possible that most MPD patients have been created in the therapist's laboratory, so to speak? How could it be possible that so many people, particularly female people [85% of MPD patients are female], could have so many [false memories](#) of childhood sexual abuse? How could so

many people behave as if their bodies have been invaded by numerous entities or personalities, if they hadn't really been so invaded? How could so many people actually experience past lives under hypnosis, a standard procedure of some therapists who treat MPD? How could the defense mechanism explanation for MPD, in terms of [repression](#) of childhood sexual trauma and dissociation, not be correct? How could so many people be so wrong about so much? Spanos' answer makes it sound almost too easy for such a massive amount of [self-deception](#) and delusion to develop: it's happened before and we all know about it. Remember [demonic possession](#)?

Most educated people today do not try to explain epilepsy, brain damage, genetic disorders, neurochemical imbalances, feverish hallucinations, or troublesome behavior by appealing to the idea of demonic possession. Yet, at one time, all of Europe and America would have accepted such an explanation. Furthermore, we had our experts--the priests and theologians--to tell us how to identify the possessed and how to exorcise the demons. An elaborate theological framework bolstered this worldview, and an elaborate set of social rituals and behaviors validated it on a continuous basis. In fact, every culture, no matter how primitive and pre-scientific, had a belief in some form of demonic possession. It had its shamans and witch doctors who performed rituals to rid the possessed of their demons. In their own sociocognitive contexts, such beliefs and behaviors were seen as obviously correct, and were constantly reinforced by traditional and customary social behaviors and expectations.

Most educated people today believe that the behaviors of [witches](#) and other possessed persons--as well as the behaviors of their tormentors, exorcists, and executioners--were enactments of social roles. With the exception of religious fundamentalists (who still live in the world of demons, witches and supernatural magic), educated people do not believe that in those days there really were witches, or that demons really did invade bodies, or that priests really did exorcise those demons by their ritualistic magic. Yet, for those who lived in the time of witches and demons, these beings were as real as anything else they experienced. In Spanos' view, what is true of the world of demons and exorcists is true of the psychological world filled with phenomena such as repression of childhood sexual trauma and its manifestation in such disorders as MPD.

Spanos makes a very strong case for the claim that "patients learn to construe themselves as possessing multiple selves, learn to present themselves in terms of this construal, and learn to reorganize and elaborate on their personal biography so as to make it congruent with their understanding of what it means to be a multiple." Psychotherapists, according to Spanos, "play a particularly important part in the generation and maintenance of MPD." According to Spanos, most therapists never see a single case of MPD and some therapists report seeing hundreds of cases each year. It should be distressing to those trying to defend the integrity of psychotherapy that a

patient's diagnosis depends upon the preconceptions of the therapist. However, an MPD patient typically has no memory of sexual abuse upon entering therapy. Only after the therapist encourages the patient do memories of sexual abuses emerge. Furthermore, the typical MPD patient does not begin manifesting "alters" until *after* treatment begins (Piper 1998). MPD therapists counter these charges by claiming that their methods are tried and true, which they know from experience, and those therapists who never treat MPD don't know what to look for.*

Multiple selves exist, and have existed in other cultures, without being related to the notion of a mental disorder, as is the case today in North America. According to Spanos, "Multiple identities can develop in a wide variety of cultural contexts and serve numerous different social functions." Neither childhood sexual abuse nor mental disorder is a necessary condition for multiple personality to manifest itself. Multiple personalities are best understood as "rule-governed social constructions." They "are established, legitimated, maintained, and altered through social interaction." In a number of different historical and social contexts, people have learned to think of themselves as "possessing more than one identity or self, and can learn to behave as if they are first one identity and then a different identity." However, "people are unlikely to think of themselves in this way or to behave in this way unless their culture has provided models from whom the rules and characteristics of multiple identity enactments can be learned. Along with providing rules and models, the culture, through its socializing agents, must also provide legitimation for multiple self enactments." Again, Spanos is not saying that MPD does not exist, but that the standard model of (a) *abuse*, (b) *withdrawal of original self*, and then (c) *emergence of alters*, is not needed to explain MPD. Nor is the psychological baggage that goes with that model: repression, recovered memory of childhood sexual abuse, integration of alters in therapy. Nor are the [standard diagnostic techniques: hypnosis](#), including [past life regression](#), and [Rorschach tests](#).

It should be noted that books and films have had a strong influence on the belief in the nature of MPD, e.g., *Sybil*, *The Three Faces of Eve*, *The Five of Me*, or *The Minds of Billy Milligan*. These mass media presentations influence not only the general public's beliefs about MPD, but they affect MPD patients as well. For example, Flora Rheta Schreiber's *Sybil* is the story of a woman with sixteen personalities allegedly created in response to having been abused as a child. Before the publication of *Sybil* in 1973 and the 1976 television movie starring Sally Fields as Sybil, there had been only about 75 reported cases of MPD. Since *Sybil* there have some 40,000 diagnoses of MPD, mostly in North America.

Sybil has been identified as [Shirley Ardell Mason](#), who died of breast cancer in 1998 at the age of 75. Her therapist has been identified as Cornelia Wilbur, who died in 1992, leaving Mason \$25,000 and all future royalties from *Sybil*. Schreiber also died in 1988. It is now known that [Mason had no MPD](#)

[symptoms before therapy with Wilbur](#), who used hypnosis and other suggestive techniques to tease out the so-called "personalities." *Newsweek* (January 25, 1999) reports that, according to historian Peter M. Swales (who first identified Mason as Sybil), "there is strong evidence that [the worst abuse in the book] could not have happened."

Dr. Herbert Spiegel, who also treated "Sybil", believes Wilbur suggested the personalities as part of her therapy and that the patient adopted them with the help of hypnosis and sodium pentothal. He describes his patient as highly hypnotizable and extremely suggestible. Mason was so helpful that she read the literature on MPD, including *The Three Faces of Eve*. The Sybil episode seems clearly to be symptomatic of an iatrogenic disorder. Yet, the Sybil case is the paradigm for the standard model of MPD. A defender of this model, [Dr. Philip M. Coons](#), claims that "the relationship of multiple personality to child abuse was not generally recognized until the publication of Sybil."

The MPD community suffered another serious attack on its credibility when Dr. Bennett Braun, the founder of the International Society for the Study of Disassociation, had his license suspended over allegations he used drugs and hypnosis to convince a patient she killed scores of people in SATANIC RITUALS. The patient claims that Braun convinced her that she had 300 personalities, among them a child molester, a high priestess of a satanic cult, and a cannibal. The patient told the Chicago Tribune: "I began to add a few things up and realized there was no way I could come from a little town in Iowa, be eating 2,000 people a year, and nobody said anything about it." The patient won \$10.6 million in a lawsuit against Braun, Rush-Presbyterian-St. Luke's Hospital, and another therapist.

defenders of MPD

The defenders of the MPD/DID standard model of genesis, diagnosis and treatment argue that the disease is underdiagnosed because its [complexity makes it very difficult to identify](#). Dr. Philip M. Coons, who is in the Department of Psychiatry at the Indiana University School of Medicine, claims that "there is a professional reluctance to diagnose multiple personality disorder." He thinks this "stems from a number of factors including the generally subtle presentation of the symptoms, the fearful reluctance of the patient to divulge important clinical information, professional ignorance concerning dissociative disorders, and the reluctance of the clinician to believe that incest actually occurs and is not the product of fantasy." Dr. Coons also claims that demonic possession was "a forerunner of multiple personality."

Another defender of the standard model of MPD, Dr. Ralph Allison, has [posted his diagnosis](#) of Kenneth Bianchi, the so-called Hillside Strangler, in which the therapist admits he has changed his mind several times. Bianchi, now a convicted serial killer serving a life sentence, was diagnosed as having

MPD by defense psychiatrist [Jack G. Watkins](#). Dr. Watkins used hypnosis on Bianchi and "Steve" emerged to an explicit suggestion from the therapist. "Steve" was allegedly Bianchi's alter who did the murders. Prosecution psychiatrist [Martin T. Orne](#), an expert on hypnosis, argued successfully before the court that the hypnosis and the MPD symptoms were a sham.

Allison claims, but offers no evidence, that the controversy over MPD is one between therapists, who defend the standard model, and teachers, who deny MPD exists.* The battle took place in committee when preparing the [DSM-IV](#), he claims. The teachers won and MPD was removed and DID replaced it. The [DSM-IV](#) is the current version (1994) of the American Psychiatric Association's *Diagnostic & Statistical Manual of Mental Disorders*. It lists 410 mental disorders, up from 145 in DSM-II (1968). The first edition in 1952 listed 60 disorders. Some claim that this proliferation of disorders indicates an attempt of therapists to expand their market; others see the rise in disorders as evidence of better diagnostic tools. According to Allison, MPD was called "Hysterical Dissociative Disorder" in DSM-II and did not have its own code number. MPD was listed and coded in DSM-III, but removed in DSM-IV and replaced with DID.

See related entries on [exorcism](#), [false memory](#), [hypnosis](#), [hystero-epilepsy](#), [New Age psychotherapies](#), [repressed memory](#), and [repressed memory therapy](#).

further reading

[reader comments](#)

- [Multiple Personality Disorder \(Dissociative Identity Disorder\)](#) by Paul R. McHugh MD, Henry Phipps Professor of Psychiatry and Director of the Department of Psychiatry and Behavioral Science at the Johns Hopkins Medical Institutions in Baltimore
- [The Devil & Dr. Braun](#) by Matt Keenan (Bennett G. Braun, M.D., author of *The Treatment of Multiple Personality Disorder*, was the founder and former Medical Director of the Dissociative Disorders Unit (now closed) at Rush-Presbyterian-St. Luke's Medical Center in Skokie, Illinois. He founded of the International Society for the Study of Multiple Personality Disorder, now known as The International Society for the Study of Dissociation.)
- [STATE OF ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION](#) complaint against Dr. Braun
- [Illinois psychiatrist sued for convincing patient she was a cannibal](#)
- [Texas Jury Awards Largest Amount Ever to Patient in Recovered-Memories Case](#)
- [Ex-patient tells of bid to save son after cult diagnosis by therapists](#)

- [Psychologist accused of planting false abuse memories in patient](#)
Minneapolis Star Tribune, April 5, 1997 By Glenn Howatt
- [The British False Memory Society](#) - see [Twelve Myths about False Memories](#)
- [MPD](#) - the religious tolerance page
- [A Patient with Dissociative Identity Disorder 'Switches' in the Emergency Room](#) by René J. Muller, Ph.D.
- [Crowded Minds](#) by Robert Adler, *New Scientist*

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[Diehl, William. *Primal Fear* \(Del Rey, 1996\).](#) (Note: this is a novel, recommended by Grant Middleton of the band 'The Demon Haunted World'!)

"Objective Documentation of Child Abuse and Dissociation in 12 Murderers With Dissociative Identity Disorder," *THE AMERICAN JOURNAL OF PSYCHIATRY* Volume 154, Number 12 December 1997 by Dorothy Otnow Lewis, M.D., Catherine A. Yeager, M.A., Yael Swica, B.A., Jonathan H. Pincus, M.D., and Melvin Lewis, M.B.B.S., F.R.C.Psych., D.C.H. ([summary](#))

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psychology

Psychology is the science of mental processes and behavior.

One view of psychology sees the discipline much the way Neil Postman (1992) characterizes it: psychologists are capable of saying with a straight face, and no doubt thinking that they are contributing greatly to scientific knowledge, things like: "Depression is almost always a factor in the estimated 30,000 suicides in the United States each year." Or, "In two new major studies of depression, researchers have discovered that stressful events--death, divorce or other emotional crisis--may cause otherwise healthy people to develop symptoms of depression as early as a week later." These two "major" studies "Tracked the time between stressful events and depressive episodes and found that 60 percent of the first-time depressions were linked to a stressful event." "In those patients considered to be otherwise healthy, more than a quarter became depressed within a week of the event, and the majority reacted by four weeks on average" (National Institute of Mental Health, cited in "Everyday life may cause depression," by Trisha Gura, *Chicago Tribune*, printed in the *Sacramento Bee*, July 31, 1994, p. A8). To many people, it is not news that people get depressed when a loved one dies or when they go through a divorce. This seems to be a matter of "commonsense" and no scientific study is needed to verify it.

Another view of psychologists is that they are trained at accredited institutions of higher learning, and must be well-versed in statistics and the logic of scientific experimental methods. Much of the research done by psychologists is as rigorous as that done by anyone in any of the sciences. In fact, it is probably very disconcerting to many young psych majors to discover that they are expected to think logically, understand the manipulation of variables and concepts such as $p = 0.05$, the necessity of [control groups](#), [the placebo effect](#), standards of deviation, etc. Many of them no doubt got their idea of psychology from the mass media. They think Dr. Joyce Brothers, Dr. Ruth, Shere Hite and the hosts of author/social workers or parapsychologists making the talk show circuit are the "real" psychologists. Or they think of speculative philosophers like [Freud](#) or [Jung](#) as their archetype of The Psychologist. It must be very disappointing to many would-be shrinks to discover that their teachers expect them to think like scientists rather than philosophers or creative writers.

It must be even more disheartening for research psychologists than for their students to see their field dominated in the public eye by incompetents and frauds. The public is treated to a continuous feast of wild-eyed and dangerous [New Age therapies](#), illogical [alien abduction](#) therapists, incompetent and fraudulent [parapsychologists](#), inept [facilitated communication](#) advocates,

overzealous [repressed memory](#) & [child abuse therapists](#), bogus self-esteem studies, etc.

Why doesn't the mass media pay more attention to the psychologists who are conducting properly controlled studies? Where is the hype spreading the news that there is no evidence that highly religious people are more altruistic and honest than less religious people? [R. F. Paloutzian's *Invitation to the Psychology of Religion* (Scott Foresman; 1983) or "Faith Without Works," in the *Journal of Applied Social Psychology*, (1975)]. Where is the mass media spreading the word about studies which have shown that the [full moon](#) does not stimulate people to commit crimes or that blind people have especially acute hearing? Who gets all the attention when a competent research psychologist challenges some commonsense notion about childhood memory or testimony put forth as truth by some New Age therapist testifying in a court of law?

Finally, it must be shocking for many young students, contemplating a career of helping people and the human race through psychology, to discover that most academic psychologists don't think [psi](#) exists and that most standard psych textbooks do not consider [parapsychology](#) worthy of even an honorable mention. According to Wagner and Monnet, in a 1979 study of 1,100 college professors in the United States, only 34% of psychologists surveyed believe that [ESP](#) is either an established fact or a likely possibility. The comparable figures for other disciplines are: natural scientists (55%), social scientists [excluding psychologists] (66%) and for academics in the arts, humanities, and education (77%). However, less encouraging was the report that 34% of the psychologists surveyed believe psi is an **impossibility**. Only 2% of the other respondents maintained this logically untenable position ("Attitudes of College Professors toward Extra-sensory perception," *Zetetic Scholar*, 5, 7-17, 1979).

See related entries on [codependency](#), [facilitated communication](#), [hypnosis](#), [memory](#), [multiple personality disorder](#), [New Age Therapies](#), [repressed memory](#), [repressed memory therapy](#), [substance abuse treatment](#), and [the penile pleythysmograph](#).

further reading

- [Review of "Crazy" Therapies by Singer and Lalich](#)
- [False Memory Syndrome Foundation](#) and [Moving Forward](#) (the other side) A site called [False Memory Syndrome Facts](#) (with the same acronym as False Memory Syndrome Foundation) has been set up apparently to confuse those looking for the FMS Foundation
- [The British False Memory Society](#)

- [Psych Site Science of Psychology: Resources](#)
- [IN THE FOOTSTEPS OF SIR CYRIL BURT AND BRUNO BETTLEHEIM](#)
- ["How Psychologists Have Helped Families"](#) by Harriet P. Lefley, Ph.D.

[Baker, Robert A. *They Call It Hypnosis* \(Buffalo, N.Y.: Prometheus Books, 1990\).](#)

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Last updated 12/30/01



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[The people who believe that Satanists might eat your baby](#)

By Damian
Thompson (Filed:
22/03/2002)

satanic ritual abuse (SRA)

Satanic ritual abuse (SRA) is the name given to the allegedly systematic abuse of children by Satanists.

Since the mid 1970s, there have been widespread allegations of the existence of a well-organized intergenerational satanic cult whose members sexually molest, torture and murder children across the United States. In the 1980s there was a panic regarding SRA, which was largely triggered by a fictional book called *Michelle Remembers* (1980). The book was published as fact but has subsequently been shown to be a hoax by at least [three independent investigators](#). No hard evidence of Satanic Ritual Abuse in North America has been found. Nevertheless, the allegations were widely publicized on radio and television talk shows, especially on [Geraldo Rivera's show](#).

A four-year study in the early 1990s found the allegations of satanic ritual abuse to be without merit. The study was conducted by University of California at Davis psychology professors Gail S. Goodman and [Phillip R. Shaver](#), in conjunction with Jianjian Qin of UC Davis and Bette I. Bottoms of the University of Illinois at Chicago. Their study was supported by the National Center on Child Abuse and Neglect. The researchers investigated more than 12,000 accusations and surveyed more than 11,000 psychiatric, social service and law enforcement personnel. The researchers could find no unequivocal evidence for a single case of satanic cult ritual abuse.

Another [study by Kenneth V. Lanning, a Supervisory Special Agent at the FBI Academy](#), published in 1992 came to the same conclusion: there is no good evidence of a single case of SRA. Lanning has investigated SRA since 1981.

If there are thousands of baseless accusations, how do they originate? Most of them are said to originate with children. Since there is a widespread belief that children wouldn't make up stories of eating other children or being forced to have sex with giraffes after flying in an airplane while they were supposed to be in day care, the stories are often taken at face value by naive prosecutors, therapists, police officers and parents. Yet, the researchers found that children are unlikely to invent stories of satanic ritual abuse on their own. So, where do the stories come from? They probably come from the therapists, the district attorneys, police and parents. There is ample evidence that therapists and law enforcement personnel encourage and reward children for accepting the suggestions of bizarre abusive behavior. They also discourage truth by refusing to accept no for an answer, forcing children to undergo interrogations until the interrogator gets what he or she is after.

A summary of the Goodman et al. study may be obtained for free by calling the National Center on Child Abuse and Neglect at 1-800-394-3366.

See related entries on [New Age psychotherapies](#) and [repressed memory therapy](#).

further reading

- [Satanic Media Watch and News Exchange \(SMWNE\)](#) - A. O. Lap
- [The Debunking of a Myth - Why the original "ritual abuse" victim may have suffered only from her childhood fantasies](#) - by Denna Allen & Janet Midwinter (*The Mail on Sunday*. London, England, September 30, 1990, p. 41)
- [GIVING THE DEVIL MORE THAN HIS DUE](#) by David Alexander (THE HUMANIST, March/April 1990)
- [Satanic Ritual Abuse \(SRA\)](#) The Ontario Center for Religious Tolerance Page on the new witchhunt for satanic abusers of children
- ["The Hard Facts About Satanic Ritual Abuse,"](#) by Bob and Gretchen Passaintino
- [1992 FBI report on ritual abuse](#)
- [Links to Witchhunt related articles and WWW sites](#)

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[Loftus, Elizabeth. *The Myth of Repressed Memory: False Memories and Allegations of Sexual Abuse* \(New York: St. Martin's Press, 1994\).](#)

[Nathan, Debbie and Michael Snedeker. *Satan's Silence: Ritual Abuse and the Making of a Modern American Witch Hunt*,\(New York, NY: BasicBooks, 1995\).](#)

[Ofshe, Richard, *Making Monsters: False Memories, Psychotherapy, and Sexual Hysteria* \(University of California Press, 1996\).](#)

[Victor, Jeffrey S. *Satanic Panic : The Creation of a Contemporary Legend* \(Open Court Publishing, 1993\).](#)

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television

The Search for Satan, *Frontline*, originally aired 10-24-95, produced by Ofra Bikel and Rachel Dretzin ("untangles the mysterious web of satanic ritual abuse, psychiatric treatment, and insurance claims that escalated into millions of dollars. Were these professed victims of secret satanic cults really helped by the psychiatric care they received?" *Frontline* answers, No.)

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Ica stones

"In the vicinity of the village of Ocucaje and Ica, in Peru, a collection of rounded stones . . . has been amassed by Dr. Javier Cabrera....The people are shown hunting or struggling with a variety of monsters that resemble BRONTOSAURS, TRICERATOPS, STEGOSAURS, AND PTERODACTYLS . . . human beings are portrayed as having domesticated animals that appear to be DINOSAURS and are using them for transportation and warfare. People are shown using telescopes, looking at the stars, and performing surgery" (Charles Berlitz, *Atlantis, the Eighth Continent*, 1984, pp.193-194).*

The Ica stones are a collection of stones allegedly discovered in a cave near Ica, Peru. The [andesite](#) stones have had their oxidized surfaces engraved with depictions that call into question just about everything science has taught us about the origin of our planet, ourselves, and other species. For example, some of the stones depict men (who look like ancient Incas or Aztecs) attacking huge stylized monsters with axes. The monsters are said to be dinosaurs. (One [film production company](#) goes so far as to claim that the monsters on the stones are "realistic depictions of Stegosaurus, Tyrannosaurus Rex and Pterodactyls.")



The cave where the stones were allegedly discovered has never been identified, much less examined by scientists. Skeptics consider the stones to be a pathetic hoax, created for a gullible tourist trade. Nevertheless, three groups in particular have endeavored to support the authenticity of the stones: (a) those who believe that extraterrestrials are an intimate part of Earth's "real" history; (b) fundamentalist [Creationists](#) who drool at the thought of any possible error made by anthropologists, archaeologists, evolutionary biologists, etc.; and (c) the mytho-historians who claim that ancient myths are accurate historical records to be understood literally.

The Ica stone craze began in 1996 with Dr. Javier Cabrera Darquea, a Peruvian physician who allegedly abandoned a career in medicine in Lima to open up the Museo de Piedras Grabadas (Engraved Stones Museum) in Ica. There he displays his collection of several thousand stones. Dr. Cabrera claims that a farmer found the stones in a cave. The farmer was arrested for selling the stones to tourists. He told the police that he didn't really find them in a cave, but that he made them himself. Other modern Ica artists, however, continue to carve stones and sell forgeries of the farmer's forgeries. In 1975, Basilio Uchuya and Irma Gutierrez de Aparcana claimed that they sold

Cabrera stones they'd graved themselves and that they'd chosen their subject matter by copying from "comic books, school books, and magazines" (Polidoro 2002).

Dr. Cabrera's museum is listed as a tourist site by the Peruvian National Chamber of Tourism, though the authenticity of the stones is left open. According to the Chamber of Tourism, the museum has an

exhibition of engraved stones depicting -supposedly - thousand of years of human activities. Based upon the found pieces, collection owner doctor Javier Cabrera, holds a theory according to which Ica was the seat of the first Peruvian culture.*

Dr. Cabrera's authority in the matter of the stones seems to have originated from his declaration that a particular stone (shown above) depicts an extinct fish. The depiction is stylized, as are most of the drawings of ancient Peruvian cultures. It must be admitted that knowledge of extinct fish is rare among physicians, even those who have studied biology. Those who are impressed with this knowledge of extinct fish don't seem to be interested in exactly what fish this is supposed to be, when it became extinct, or what the telltale marks are that allow for this identification.

It is argued by the Extraterrestrialites and the Creationists that this depiction of an extinct fish proves either that the Indians who made these stones were given information by aliens about extinct fish (for they could not possibly have found any fossils and copied the fossils) or that the timeline that places extinctions of animals like this fish millions of years in the past are clearly wrong. The Indians lived within the past millennium or two, and so the extinctions must be recent.

It is argued by the Myth-Is-Historyites that since the stones depict men attacking monsters, monsters must really have existed and men must really have attacked them. Thus, either humans existed during the Jurassic period or dinosaurs existed until very recently. It is argued by all of the above that this means that evolutionists are wrong. Furthermore, the fact that they won't admit that they are wrong proves that there is a conspiracy among scientists to keep the truth from the public in order to dupe us into believing things that are inconsistent with both the notion that God created all species a few thousand years ago and that we are all descendents of aliens. (Note: these are the same scientists who have kept the truth from us about the reality of the monsters depicted in stories, on vases, and on temples in ancient Greece, India, etc. They have also kept from us the truth about the ancient Egyptians building pyramids as radio towers. There are many other things these [wicked scientists](#) have hidden from us, such as that in 75,000,000 B.C. [Xenu](#) ordered a nuclear attack on our planet.)

Cabrera has his own theory about the creators of the stones. His theory is based upon the premise that the stones are not a hoax. This is understandable, since, if the stones are a hoax, Cabrera is one of the key hoaxers. Cabrera's theory is that the stones depict the first Peruvian culture as an extremely advanced technological civilization. How advanced? The stones allegedly depict [open-heart surgery](#), brain transplants, telescopes, flying machines, etc. When did they exist? They came from the Pleiades about one million years ago. How does he know this? That is anybody's guess, but you can read about it in Cabrera's book [The Message of the Engraved Stones of Ica](#).

Why don't scientists simply date the stones and settle the matter? Stones without organic material trapped in them can only be dated by dating the organic material in the strata in which they are found. Since Cabrera's stones come from some mystery cave which has never been identified, much less excavated, there is no way to date them.

That no one has ever found any other remnant of this great culture should be troublesome, however. Such a great society might have left at least some garbage or some ruins, maybe even a bone or two, a grave here or there, or a temple, a hospital, an observatory, an airport. But this great civilization, unlike every other great civilization of the past (except [Atlantis](#), of course!) has vanished without a trace, except for Cabrera's stones. Of course, there are the [Nazca](#) lines. Unfortunately, the creators of the Nazca figures didn't depict any Indians attacking dinosaurs or doing brain transplants, something which might have tied the Ica stones to the Nazca lines in this exciting new field of "alternative science".

There is, of course, an explanation for the cleanliness of this great people. They were able to exist long enough to hunt dinosaurs and build spacecraft (when they were not doing brain transplants) and yet leave nothing behind but a cave full of artistic scratches on stones because they were not from this planet. They left (and presumably took everything with them), leaving behind only the stones as a kind of puzzle for later generations of stupid humans to solve. Maybe they went on to [Nazca](#) or to [Lubaantun](#) to create more puzzles. Maybe these aliens are giving us an I.Q. test. Or the stones may be another test of faith given to mankind by the God of the Bible. Or maybe they're just a hoax.

The proof that the stones are not a hoax, says Dr. Cabrera, is in their number. There are too many stones for a single farmer, or even a collective of hoaxers, to have scratched out. He claims that the locals have unearthed about 50,000 stones and that they showed him a "tunnel" where there are another 100,000. However, so far no scientific expedition, or even a film crew led by [Charleton Heston](#) of the mysterious "Mysterious Origins of Man" spectacle, has set out to explore this tunnel.

Furthermore, says Cabrera, who apparently fancies himself an expert on

volcanic stone as well as on extinct fish, andesite is too hard to carve well by mere mortals using stone tools. True, but the stones aren't carved. They are graved, i.e., a surface layer of oxidation has been scratched away. Dr. Cabrera assumes that the creators of the stones only had stone tools available to them. The Inca, Maya and Aztec cultures all had advanced metallurgy by the time the Spanish arrived. Cabrera and the Ica locals certainly have more than stone tools available to them. Basilio explained how he and Irma achieved the "ancient" look on their stones: They laid out the graved stones in a chicken pen and the "chickens did the rest" (Polidoro 2002).

Are the stones authentic? If by *authentic* one means that they were engraved by pre-Columbians, then the answer has to be an unqualified "not all of them." Some engraved stones are said to have been brought back to Spain in the 16th century. It is possible that some of the stones are truly examples of pre-Columbian art. However, it is known that some such stones are forgeries. Tourists, not just in Peru, but everywhere on earth where there are antiquities, have been suckers for forgeries. Local con artisans are aware of the market for "forbidden" antiquities. (I myself am the proud owner of a shard sold to me in Arizona by a young Native American as an authentic "illegal" piece of [Anasazi](#) pottery. A colleague has some nice forgeries from Egypt made to look old by dipping them in motor oil and torching them.) Pre-Columbians certainly were fascinated with monsters, as were ancient European cultures, but do the stones depict dinosaurs? That is open to interpretation. If they do depict dinosaurs and humans together what is more likely? that they are accurate historical documents or that they are part of a clever hoax? In light of the lack of corroborating evidence, a reasonable person must conclude that the stones are a hoax.

Cabrera's story does not have the ring of verisimilitude about it, though it does have a certain charm. The story certainly has found several ready audiences who have found a niche in their own belief systems for the stones. Never mind that the belief systems not only contradict one another, but are also contrary to the preponderance of the scientific evidence. Creationists, mythohistorians, and extraterrestrialists are in a *jihad* against belief in evolution where apparently it is one's duty to make the preposterous seem plausible.

further reading

[reader comments](#)

Skeptical

- [Council for Media Integrity Blasts Networks for Distorted Treatments of Science](#)

- ["Ancient Technology - Did the Ancients really need Aliens?"](#) Paul Willis interviews Dr. David Dearborne, an astronomer and physicist who's worked extensively on Inca astronomy
- [Stephen Wagner, About.com, The Mysterious Ica Stones](#)
- [Domesticated Dinosaurs?](#) by David Matthews

Gullible

- [Stones of Ica, Peru](#)
- [Pictures of some Ica stones](#)
- [More Pictures](#) and [More](#)
- [Dinosaurs?](#)
- [Ica Stones of Peru](#) by Robert Prickett
- [Pieces out of Time](#) by Stephen Wagner
- [The Nazca Spaceport and the Ica Stones](#)
- [Worlds before our own](#) by Brad Steiger
- [An ancient library on over 50,000 carved stones: the Ica Stones of Peru](#) by Sr. J.J. Benitez
- [Atlantis Rising](#) Top Ten Out-of-place artifacts
- [Peru, the Land of UFOs?](#) by Joshua Shapiro

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Last updated 09/08/02



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fetishes

Fetishes are objects such as stones, teeth, or carvings, supposedly possessing magical powers that can protect one from harm, cure disease, etc. Some fetishes are thought to be magical in themselves; others get their magic from some divinity. Some fetishes are believed to be so powerful that only special individuals are allowed to handle them. For all others, the fetish is taboo.

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[feng shui](#)

[firewalking](#)

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talisman

A talisman is a cut figure or engraving, such as on a coin, that has magical powers to avert evil or bring about good.

See related entries on [amulets](#), [charms](#), and [fetishes](#).

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[tantra](#)

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reader comments:

chelation therapy

26 Oct 1997

The Skeptics Dictionary is very necessary and contains some good information about all forms of medicine etc. The only problem I see is that there is no critical overview given about CABGS and angioplasty, it is assumed that these are THE standard of care for ASHD, and are in the neighborhood of 90% curative.

reply: Who assumes that bypass surgery or angioplasty are 90% curative? This seems rather high to me, but you may be right. The "standard treatment" for vascular diseases would depend, I would assume, on the condition of the patient and would be determined by the physician. You make it sound like anyone with a vascular problem will be advised to have bypass surgery or angioplasty. You're creating a straw man argument by distorting the practice of "standard" medicine to make it appear foolish.

The very arguments presented against chelation therapy can be used against bypass surgery and angioplasty, i.e. double blind, cross-over, placebo controlled studies have not been done. If these studies have been done, might we be given same?

reply: I would assume that you know the purpose of control studies: to test causal hypotheses. Your comparison of chelation therapy to bypass surgery and angioplasty is a false analogy. You ought to compare it to a new form of chemotherapy, whose causal efficacy is in question. As a physician, I imagine you are familiar with the setting of broken bones. Are you troubled that there are no double-blind, cross-over, placebo controlled studies showing that people with broken bones are more likely to heal better than those whose bones are not set? If there is no good reason to suspect causal efficacy, tests of causal hypotheses are unnecessary. Our knowledge and experience, including that gained from experimentation on animals, as well as basic knowledge of physiology, anatomy, biochemistry, etc., often provide sufficient evidence for establishing the reasonableness of certain medical procedures. I assume, as a physician and as someone with some scientific training, that you are well aware of this and bring up the false analogy in order to enhance your straw man caricature of "standard" medicine.

It is stated that Medicare does not pay for chelation therapy, but nowhere does it mention that Aetna does pay. John Hancock insurance also pays for CT. Would it be possible for you to tell the public why these companies pay for the therapy?

reply: I can't answer for the insurance companies, but I can tell you why I would pay for chelation therapy if I were an insurance company: it would save me bundles of money. I would much rather have my clients choosing a cheaper therapy. However, I wouldn't sell these same people life insurance.

A discussion of mortality statistics for these forms of therapy would also be of great benefit, as well as costs for them.

reply: in theory this sounds reasonable, but before mortality statistics for two therapies should be compared, it would have to be established that the patients receiving the therapies were very, very similar. This may be easy to do in terms of age, gender, weight, smoking, etc., but may not be feasible in terms of general health or actual state of disease. I would like to see a study with a large number of patients involved which takes patients recommended for a bypass and divides them into two groups: those who refuse the bypass and go for chelation therapy and those who have the bypass. If the groups were large enough, studying their mortality figures would be very useful. I think it would be ethical as well, since the only patients one would send for chelation would be those who refused surgery. Maybe someday such a study will be done.

Ask physicians who have used chelation therapy about their results, not people who have only read about it or heard about it, but ask those who have actually experienced the use of it. All that is asked, is, be fair, leave off the hype (both sides), and the talk of "bozoid" therapies etc. It is my belief that this therapy is headed for universal approval very soon. Chelation therapy does indeed work, albeit much to the chagrin of the scalpel & balloon proponents, not that they aren't needed, they are, just not as first line therapy.

reply: I have read material from physicians who use chelation therapy and I am not as convinced as they are of their results. Their scientific studies are not well conducted. Their anecdotes are not scientific evidence, their correlations often illusory.

Here is something to ponder, if CT does work 90% of the time, and is used first, before cabgs, then cabgs would drop in this country from \$30 Billion / yr. to \$3 Billion/ yr. Is it not reasonable to think that the loss of \$27 Billion / yr. would affect the thinking of most? What is the saying? Money talks?

Ron Davis, M.D.

reply: \$30 billion!! I don't know where you got your numbers but I can see

why you would like some of that CABGS money thrown your way. As Sen. Dirkson once said, a billion here, a billion there, pretty soon it adds up to a lot of money!

17 Jul 1996

Just a clarification for your edification... Chelation is a chemical process by which a large molecule such as EDTA binds smaller minerals. The form of the chelating agent can be designed to bind various valences (e.g. calcium ions carry a charge of +2 and are easily bound by disodium EDTA as is Lead). The substances chelating agents bind must inherently be in solution, for they only bind ionized or solubalized substances. Therefore, it seems rather bizarre that anyone should claim EDTA can bind a precipitate such as a cholesterol plaque. (Cholesterol is a lipid... thus.... nonionic, carrying no charge, thus not bound by a chelating agent)

--S. Durrenberger MD, also registered Pharmacist

reply: it may seem bizarre to you and me, but one common feature of alternative health practitioners is that they have some bizarre ideas about science. One common theme is belief in notions which ignore established scientific facts and theories.

28 Jul 1996

*I have enjoyed your **Skeptic's Dictionary**. I have used your resources with some of my patients. I am an internist at a rural hospital in upstate NY. I found your piece on chelation a nice concise view--as a skeptic would see it. The new addendum by S. Durrenberger MD, however, changed the article from being skeptical to bizarre.*

At our hospital we are investigating the concept of Complementary and Alternative Medicine Program and I have been getting material for presentation to the Medical Staff. Nowhere in the all the readings of Free Radical pathology, anti oxidation, and chelation literature did I come across claims that EDTA can bind a precipitate such as a cholesterol plaque.

[The writer recommends:

"Free Radical Pathology in Age-Associated Diseases: Treatment with EDTA Chelation, Nutrition and Antioxidants," JOURNAL OF ADVANCEMENT IN MEDICINE, vol. 2, Nos. 1,2, spring/summer 1989 by E.M.Cranton, J.P.Frackelton. This issue is in print and available through Human Science Press, inc., 233 Spring Street, New York, NY 10013-1578.]

Before you post any other assumption you owe it to your readers to check the sources. In the world of innovation it is easy to slip from innovative therapies to snake oil. Also beware it is just as easy or more easy to be myopic and prejudicial with rhetoric of a skeptic to mask the deception. Please accept this critical analysis in the spirit it is given.

*My respects to you for tackling a large field.
All the best and I hope to benefit by your dictionary.
Sincerely yours*

L.T.Parker, MD

reply: I think my readers are intelligent enough to know that what is printed as a reader comment is to be read just as critically as anything I write. I hope no one reads this or any other material on these subjects thinking that someone else has done all the checking on sources so they don't have to think about it.

15 Nov 1996

Two years ago my mother, age 85, went to a doctor for an analysis of a problem with her feet. She had developed horrible open sores all around her toes. The physician determined that she had no pulse or circulation in her lower legs and feet, had gangrene, and said that the only solution was amputation of both legs.

My sister and I went for a second opinion. We went to a physician who used chelation therapy in his practice. After a consultation, we permitted him to started chelation intravenous feedings immediately, twice a week at first, then once a week for about three months. Very soon we saw results. First a pulse returned, then color returned, the sores started to heal, then the gangrene disappeared. My mother's complexion improved significantly, she started feeling healthier than she had felt in years. Her hair became so dense that my sister had trouble cutting it. Now, two years later, when my sister and she go to the mall, my sister (age 45) gets tired before my mother (age 85).

*The bottom line is that the licensed physician who used chelation is the healer. The licensed physician who recommended amputation is terribly ignorant, he is the snake oil practitioner. But they both are licensed physicians. What do they call the student who graduates at the bottom of the class in medical school?
Doctor!*

p.s. The cost of the chelation therapy was \$3,000, paid for out of her savings. Medicare would have paid for the amputations.

Jim Hicks
Santee, California

2 Dec 96

Just a short clarification: the "claw" that chelation refers to in its Greek roots is seen in the shape of the molecule. Unfortunately, I can't represent it real well with this simple text editor, but it does look like a crab's claw. That is also how it works. Ionic (i.e., atoms with an electric charge) atoms can be held in the cage and transported around.

EDTA does work real well in a chemistry reaction in a test tube. But there are hundreds of thousands of reactions that work in a test tube and not the human body.

It's most unfortunate that test tube reactions can't be easily done in the body. It would be so much easier to develop all sorts of medications.

And as has already been pointed out, cholesterol and plaque are non-ionic molecules. They cannot be chelated.

John

03 Jun 1997

I am pleased to see the issue openly discussed. As a cardiologist in an open-minded research environment (Johns Hopkins) we welcome new ideas and concepts, but those ideas must then be tested both by the originators and by independent centers as well. ONE MUST NOT ACCEPT ANECDOTES TO ALTER THE PRACTICE OF MEDICINE. Let me explain: If upon leaving my home each morning, I first walked around the fire hydrant three times before getting into my car to drive to work, I might then make some observations. If after six months of this repetitive behavior I never had a car accident (and I never even came close), I might conclude that walking around the fire hydrant three times prevents automobile accidents. Clearly this is ludicrous as the entire world knows you only have to walk around fire hydrants TWICE to prevent car accidents. (Facetious, of course!)

[Testimonials](#) are useful for sales and marketing, but they have no place in a dispassionate scientific evaluation.

The data on Chelation Therapy emphatically demonstrates NO VALUE WHATSOEVER! I urge the strongest caution in evaluating the training, credibility, licensing and disciplinary record of those who are "Marketing" such therapy. I urge your readers further caution regarding any practitioner from any discipline who is more involved in the business of medicine, rather than in the practice of same.

With the managed care and cost considerations of 1997 medicine, if insurance companies had one iota of credible evidence that this therapy could prevent expensive surgery (Carotid Endartarectomy, Coronary Artery Bypass, or Aorto-Femoral Bypass) or even treat or prevent heart attacks, strokes or prevent additional hospitalizations, they would be first in line to do so! They emphatically are not! No company pays for chelation therapy because it doesn't work for cardiovascular disease. Its only clinical utility is in the treatment of lead poisoning.

CAVEAT EMPTOR! (Let The Buyer Beware!)

I would be pleased to entertain questions or comments, and thank you for your attention.

David A. Meyerson, M.D.
Cardiology - Johns Hopkins
Baltimore, Maryland
E-mail dmeyerson@pol.net



[chelation therapy](#)

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[Mickey Mouse & feng shui](#)

feng shui

Feng Shui (pronounced "phung schway" and meaning literally "*wind water*") is part of an ancient Chinese philosophy of nature. Feng shui is often identified as a form of [geomancy](#), divination by geographic features, but it is mainly concerned with understanding the relationships between nature and ourselves so that we might live in harmony within our environment.

Feng shui is related to the very sensible notion that living *with* rather than *against* nature benefits both humans *and* our environment. It is also related to the equally sensible notion that our lives are deeply affected by our physical and emotional environs. If we surround ourselves with symbols of death, contempt and indifference toward life and nature, with noise and various forms of ugliness, we will corrupt ourselves in the process. If we surround ourselves with beauty, gentleness, kindness, sympathy, music and various expressions of the sweetness of life, we ennoble ourselves as well as our environment.

Alleged masters of feng shui, those who understand the five elements and the two energies such as [chi](#) and sha (hard energy, the opposite of chi), are supposed to be able to detect metaphysical energies and give directions for their optimal flow. Feng shui has become a kind of architectural acupuncture: wizards and magi insert themselves into buildings or landscapes and use their metaphysical sensors to detect the flow of good and bad "energy." These masters for hire declare where bathrooms should go, which way doorways should face, where mirrors should hang, which room needs green plants and which one needs red flowers, which direction the head of the bed should face, etc. They decide these things on the basis of their feel for the flow of chi, electromagnetic fields or whatever other form of energy the client will worry about. (If you and your lover are having trouble in the bedroom, call a feng shui master. You probably need to move a few things around to get the bedroom chi flowing properly. Only a person with special metaphysical sensors, however, can tell what really needs to be done.)

In short, feng shui has become an aspect of interior decorating in the Western world and alleged masters of feng shui now hire themselves out for hefty sums to tell people such as Donald Trump which way his doors and other things should hang. Feng shui has also become another New Age "energy" scam with arrays of metaphysical products from paper cutouts of half moons and planets, to octagonal mirrors to wooden flutes, offered for sale to help you improve your health, maximize your potential and guarantee fulfillment of some fortune cookie philosophy.

According to Sutrisno Murtiyoso of Indonesia, in countries where belief in

feng shui is still very strong, feng shui has become a hodgepodge of superstitions and unverified notions which are passed off in the university curriculum as scientific principles of architecture or city planning. Mr. Murtiyoso wrote me about a university lecturer who had written an article in Indonesia's biggest newspaper "advocating feng shui as a guiding principle to Indonesia's future architecture." This upset Mr. Murtiyoso: "if it is done by a so-called 'paranormal', I wouldn't be that mad. But a 'colleague', an architect . . . I just can't imagine how my people can face the next millennium still under this ancient spell. How can we progress....through this techno-jungle." If I were Mr. Muriyoso, I wouldn't worry until the architects start advocating ignoring the laws of physics in favor of metaphysical principles. We still bring in our priests to sprinkle holy water and utter incantations at the dedications of skyscrapers. So far, none have collapsed that I know of. And if being superstitious were a hindrance to progress, we'd all still be wandering the savannas with our hirsute ancestors.

further reading

[reader comments](#)

- [Look Before You Lease: Some Thoughts on Feng-Shui](#) by George Nava True II
- [Ultimate Feng Shui Resource](#)
- [Feng Shui FAQ](#)
- [Spiritweb on Feng Shui](#) (It is here that you will learn amazing things, such as, "*When your parents make love, they send out a similar frequency that attracts you and induces your five elements to come together. As this occurs, you come into existence.*")
- [WHAT IS FENG SHUI?](#) (Here you learn to say "phong schway".)
- [Feng Shui USA](#)
- [Feng Shui for fruits](#)
- [The Fen Shui Web Index](#)

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koro (shook yang)

Koro is a psychological disorder characterized by delusions of penis shrinkage and retraction into the body, accompanied by panic and fear of dying. This delusion is rooted in Chinese metaphysics and cultural practices. The disorder is associated with the belief that unhealthy or abnormal sexual acts (such as sex with prostitutes, masturbation, or even nocturnal emissions) disturb the [yin/yang](#) equilibrium which allegedly exists when a husband has sex with his wife, i.e., during "normal intercourse." This disturbance of metaphysical harmony (loss of yang) manifests itself in penis shrinkage. Yang is the vital essence of the male and when inappropriately expelled, it is believed, the result is a potentially fatal dose of koro.

Koro is also thought to be transmitted through food. In 1967, there was a koro epidemic in Singapore after newspapers reported cases of koro due to eating pork which came from a pig that had been inoculated against swine fever. Not only did pork sales go down, but hundreds of koro cases followed. The power of the press to cause panic was matched by their equal power to quell the imbalance they had caused. They gave ample access to the Singapore Medical Association and Ministry of Health who convinced the people that koro was a result of fear, thus ending the epidemic.

further reading

- [Invasion of the Penis Snatchers](#)

Bartholomew, Rober E. "The Medicalization of Exotic Deviance: A Sociological Perspective on Epidemic Koro," *Transcultural Psychiatry* 35(1):5-38, March 1998.

[Rubin, Robert T. *Extraordinary Disorders of Human Behavior*, edited by Claude T. H. Friedmann and Robert A. Faguet \(NY & London: Plenum Press, 1982\).](#)

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reader comments:

ch'i and Chi Kung

1 Nov 2000

Regards your skeptics web site reference to Qi Gong, I thought you might be interested to know of my experiences.

My background is physics and maths and I work in IT, my real passion however is playing Sax (jazz etc) and it was in my constant search for knowledge regards breathing over the last ten years that led me to the [Alexander Technique](#) (first stop of my pre-amble). The benefit that Alexander Technique has brought into the quality of my playing is huge, of course I cant prove that some other development was not responsible but my single mindedness applies to Sax not Alexander Technique and I am not particularly inclined to award credit where it is not due.

If you aren't familiar with Alexander Technique then the basic premise is that our "use" of our bodies starts off near perfect and declines from the age of 4 or 5. The technique does not seek to "add" to a person but simply to remove the bad habits which start as soon as we start to sit in chairs, experience stress etc. I think the "western" mind can relate to this more easily - once people accept that they have accumulated detrimental baggage then the claim that you will "feel better" or have more energy translates only to "you will feel as good as you were meant to be before your life-style interfered".

I would describe the impact of Alexander Technique on my life as huge - it started only in a quest to sound better but the mental and emotional benefits are also there and not to be under-estimated. Its estimated that over 80% of adults do not breathe correctly - some even exhibit a phenomenon called reverse breathing which is detrimental if continued for extended periods. Even the most skeptical doctors readily admit the link between depression and low energy levels and poor shallow breathing.

It seems a shame that modern reductionism has moved us into a position where we separate the mind and body. I was once part of this way of thinking - I now view it as analogous to a mechanic who is only willing to try and repair cars by looking at the engine - unwilling to examine the wheels, suspension etc. I don't accept "new age" beliefs without subjective proof - basically it either makes me sound better (perhaps feel better) or its rejected. Also as a musician I do have

a very sensitive scale - there are enough judges out there to determine quality in the tone of a musician accurately but not necessarily objectively or quantitatively.

I despair that Alexander Technique books are so often found next to books on Crystal Healing - many doctors advocate Alexander technique - it's respectability amongst the acting/musical and general rational community is high. Why do we insist on bagging anything not within the realms of hard science in the "quack" bag - especially since disciplines such as Alexander actually show the limitations of traditional medicine. A case in point - my neighbour is suffering from a severe upper back condition associated with the degenerative condition of the spine - at no point has any doctor or surgeon examined how she uses her body - in other words the possible causes of the condition are neglected - only the physical implications of restorative surgery is considered. I helped this neighbour relieve pain and possibly slow the degeneration simply by showing her how much unnecessary stress she was placing on the upper back through tension and misuse.

If I had encountered Qi Gong before Alexander Technique I would neither have regarded it of value or even understood it (by the way the understanding here is largely physical not cerebral). Now I understand and practice Qi Gong. If you read about it in a Chinese text then the cultural differences may be a problem, on the other hand if you already have learnt a technique suited to Westerners such as the Alexander technique then you may be able to "read through" the descriptive terms such as "Chi" and actually equate them to terms more meaningful to a western frame of reference. I don't buy all the philosophies embodied in Qi Gong but the underlying principles of breath may be translated directly into Alexandrian terms. I certainly experience something which we could call "Chi" and indeed I associate energy with it - but a life force or electrical activity - No ? I don't need these concepts I have already learnt that kinesthetic feedback is faulty - one doesn't need to believe (in the religious sense) in these imagery devices - anyone who learns Alexander Technique has already learnt that due to faulty kinesthetic feedback we often have to resort to imagery - it doesn't mean we believe in it - we just know its a means to an end - the end being enhanced mental and physical well being.

I would humbly suggest that some eastern disciplines will always "suffer in translation" and are also severely compromised when examined by the westerner who already may have totally divorced the mental and physical sides of his being - such a person is not really qualified to comment on the validity of the techniques (except perhaps to raise an eyebrow at some of the more bizarre claims). I am still not sure whether Qi Gong will one day allow me to break bricks in my hands etc - in some ways it doesn't really matter - it helps me breath and play sax better - also I feel better for it.

Personally I am just relieved that I have found a route which is rational and non-quasi religious which has enabled me to rediscover the link between my physical and mental self in a way I could accept. Alexander has done the

Westerner a huge favour by giving us a way in which we can perhaps understand and even benefit from some Eastern techniques whilst maintaining our flavour of objectivity.

Anyway I found your site interesting and probably agree on your prognosis of many "quack" beliefs, I think however you should consider whether a mild skeptical report of a technique such as Qi Gong (over 2000 years old) really deserves to be considered in the same frame of reference as the "Elvis is an Alien" type stuff that seems so popular in contemporary America ?

Jon (Cambridge UK)

reply: I would have no problem if it were simply claimed that Qi Gong can help you breathe better. It's the chi harnessing stuff that belongs right there with Elvis the Alien.

06 Jan 01

Here's something that happened to me that I'd like explained in terms of a scientific paradigm : I'd been practising t'ai chi for perhaps a year and had gone to work on a cruise ship. One night, I was asked what I'd been doing on the beach, and I explained it was a t'ai chi form. The discussion continued and one of the guys offered to show us all our 'third eye'. He pressed his thumb hard into the centre of our foreheads and asked us if we felt anything when he took it away. Hmm. I decided to try something, but had absolutely no idea whether anything would happen, and if anything were to happen, what it might be. I stood in the prescribed chi gung posture and did my best to achieve and maintain the precise body alignments required. None of the people in the room were prepared in any way - and I repeat, I had no idea what might happen myself. I then extended my forefinger to touch the 'third eye' spot of one of the other guys, and stood and waited.

After perhaps 60-90 seconds I felt quite distinctly a squirting sensation in the first joint of my forefinger and also in the centre of the fingertip, about 1/4 inch under the skin. The sensation was directly comparable to the feeling we experience when urinating. At precisely the same moment, the other guy swore quite violently and jerked his head back. Now I know I didn't move externally when this happened - I was concentrating quite hard on relaxing my body and there was no muscle movement. Darren (that was his name) was unable to speak for some moments and when we could get him to try to describe what had happened, all he would say was 'It felt like the back of my head came off'.

I have to say that up to that point I'd been firmly agnostic about the nature/reality of chi (and had clung tenaciously to that agnosticism in the face of many subtle but odd experiences) but this was enough to take me off the fence somewhat. Nobody in the room - least of all myself - had any preconceptions about what would happen, and yet, with no external cues, I experienced a

definite sensation that produced a violent reaction with no external movement.

I also have to say that I prefer an agnostic attitude to that of a skeptic. Skeptics seem to resort to personalities very early in the game, plus experiences such as the one I've just described are written off as 'anecdotal' - if it didn't happen in a lab IT DIDN'T HAPPEN - and there is a real danger that because something doesn't fit with our current model of the universe it's dismissed as either theoretically impossible or fraudulent. Anyone investigating in this field is written off as a nutter.

That doesn't seem especially rational to me. If you can explain the above described incident without calling me deluded or a liar, I'll be really interested. I suspect, however, from other entries in your dictionary, that you won't be able to resist that temptation.

Richard Macnamara

reply: What temptation? I can't explain what happened, but I wouldn't jump to the conclusion that chi was involved. how many times were you able to repeat the experience? If it only happened the once, I'd look for some other sort of explanation. Maybe your friend was struck by [ball lightning](#) and a bit passed over to you (though you thought it was the other way around).

*Mr. Macnamara replies:
8 Jan 2001*

This is the kind of non-answer that gets skeptics a bad name. You see what I mean ? T'ai chi people at least have a model for this stuff - and if you do the exercises, results happen. No, I haven't since tried to repeat the experiment because it seemed as if it might not be healthy for the other person concerned. My sense-data gets written off as unreliable anecdotal evidence and nobody has to look for a proper explanation. Because everybody knows everything already, everybody knows that sort of thing can't happen. Further, by insisting that the sort of thing you look for conforms to the reproducible, mechanistic model you don't look at what is actually there. The trouble with Occam's razor is that it begs the question of what data to include in the first place.

reply: I don't know what to say Richard. All I said was that I can't explain what happened to you and your friend. I suggested one possible explanation, but didn't push it. I don't think the concern over reproducibility is unreasonable, in light of the extraordinary claim being made by you that somehow you tapped into chi and sent a blast that felt like you were urinating out of your finger and it went into your friend's third eye, where it stopped and made him feel like the back of his head was blown off.

You haven't even begun to address the question I posed and by being flippant about it you ensure at least that I don't have to take you seriously either.

reply: Flippant? I don't think so, but you may be an especially sensitive soul. I have consulted my astrotherapist and she is convinced that you and your friend had an OBE or an angel experience. Either that or you were dipping into the booze or LSD.

A book I would recommend is ['Biology as Ideology'](#) in which the whole business of science as religion substitute is addressed with remarkable clarity by a leading geneticist (whose name I forget [Richard Lewontin], but he's big mates with Stephen Jay Gould).

reply: I'm sure it's a great book. I always read books recommended to me by people after they hurl an insult or two. If anything, for some people religion is a substitute for science, i.e., knowledge.

I'm sorry, but you guys display the same inflexibility of thought and the same 'we have the TRUTH dammit' mentality of religious fundamentalists. I make no such claims, but in my experience of these matters, the practise of chi gung or t'ai chi, when taught by someone who actually knows what they're doing, produces results for which our models cannot account. To deny these results is simply to deny what is.

reply: Well, I'm glad to see you aren't dogmatic about it.

Fortunately there are enough people of genuine curiosity out there to begin investigating this stuff without getting hung up on issues of 'scientific correctness' which I'm beginning to identify with its political counterpart as Just Another Limiting Ideology.

reply: Investigate? How can anyone investigate something properly when you consider it demeaning to request that you do it again? You don't want an investigation; you want an affirmation of your preconceived beliefs.

Unfortunately folks like yourself and most egregiously James Randi, the mujaheddin of the scientific community, need to attack anyone doing work in this field and get down to personalities, dismissing their enemies as frauds and/or deluded madmen. Take a look through your database and check out how many personal slurs there are. If you write these people off as loonies, you don't have to look at the data.

reply: I may have been abusive in the early days, but if you look carefully I think you will find that I rarely get personal first. It is usually in response to someone like yourself who first takes it to the personal level. There is no reasoning with some people, so why bother? We might as well have some fun, but only when the other guy starts it. You started it and you've

continued it. You seem to have some preconceived idea as to how I would respond and you responded to your own notion of my response.

And to briefly deal with the nature of the results produced by t'ai chi, why don't you invest some time in this yourself before you deny its existence. I've been paying the exorbitant sum of five pounds sterling per weekly lesson which is a complete waste unless you actually PRACTICE. As a musician, I understand the commitment and discipline required to get the best out of something like this : in my experience, most people don't. When you've spent many hours a day just running scales, which at the time can seem a totally meaningless activity, you begin to understand your own nervous system in a whole new way, and you realise that progress comes in a series of leaps followed by plateaux [?].

reply: Well, it certainly seems to me like you're wasting your money. You're rude, insensitive and don't seem to be able to read.

The other thing is to find a good teacher. If you're genuinely interested, I could recommend one. Our correspondence thus far makes me doubt that you'd have the openness of mind required to make much progress.

Be happy in your certitude,

Richard Macnamara

reply: Do other people take your recommendations seriously after you've insulted them? Do others mistake your attitude for open-mindedness? What did you expect me to say? You know, Richard, I see now that chi is real. You have persuaded me by your anecdote. I will henceforth abandon all criticisms of chi. Maybe you do have a blockage somewhere and maybe you have progressed from where you began, but your response indicates that you are not in any position to give others advice on how to evaluate anything.

4 Sep 00

Just thought I would put my 2 cents worth on the subject of chi.

I agree that that chi does not exist but it seems that those who think it does can do some nifty things. I would point out the Shaolin Monks as one example and this guy who keeps showing up on "Ripley's Believe it or Not" as another.

The Monks can raise or lower body temperature at will take all sorts of physical punishment with nary a mark. This Ripley's guy has (under scrutiny) used the "touch of death" to render people unconscious. Now, I know that they aren't tapping in to some otherworldly force, but shouldn't some study be done

to see how these things happen?

reply: Yes. Somebody should also try to determine if the claims are true.

Chances are that the monks have superior physical conditioning and are more aware of what their bodies are capable of and the touch of death fellow knows some nifty pressure points, yet I can't help but be intrigued. Your page on chi wasn't to clear on who debunked what and where. I would be interested in knowing more about the tests and how they were conducted. You picked the easy ones, (well, breaking a brick isn't easy per se) how about some of the harder parlor tricks? I'm sure in all cases that it is explainable, but I want to know how to do these things without the religious mummery that surrounds them.

Paul MacDonald

reply: Conjuring is not my specialty. See [The Psychic Mafia](#), [Secrets of the Psychics](#), [All the Secrets of Magic Revealed: The Tricks and Illusions of the World's Greatest Magicians](#), [A Magician Among the Spirits](#), [Miracle Mongers and Their Methods](#), [Indian Skeptic](#), and a great documentary on Indian miracle workers called "Guru Busters."

24 Aug 2000

I haven't tried reviving flies but I have revived wasps and an ant. Both have quite amazing powers of recovery.

The wasps were drowning (i.e. running out of oxygen due to being immersed in a liquid - lack of lungs notwithstanding!) in a public fountain. I lifted out as many as I could and set them to dry on the stone rim of the fountain. Almost all of them recovered enough to fly away. The ant was one I stood on, on sandy ground, with my full weight, and twisting my foot. Over a few minutes, it recovered and went on its way, apparently unharmed.

Just goes to show that it is one thing to do an experiment, it is quite another to interpret the results. The fly experiment you cited (March/April 1994 issue of "Karate International") is, of course, useless as an experiment because there is no control fly that does not get exposed to chi, let alone a reasonable number of flies to allow for variation between individuals. In short, it was crap, not science.

Norman Paterson, University of St Andrews

22 Aug 2000

I have just been reading some of your readers' comments on chi. The defensive and angry stance of skeptics is interesting to me - why feel so threatened by something just because you don't understand it? There is in fact nothing mystical about chi, it is simply life energy. I don't know anything about transferring knowledge via chi or bringing flies to life - that does sound like codswallop to me - but until you have felt chi move through your body as a direct result of simply moving your hand, you can hardly claim to know what you are talking about. And no, this is not "runner's high", or the result of releasing tensed up muscles - I have experienced chi while simply relaxing, standing still first thing in the morning and practising basic chi gung hand exercises. And no, it hasn't taken me years to learn how to do this - more like months. And no, it didn't cost much. The school where I learn Shaolin Kempo and Chen style tai chi provides straightforward instruction at a cost that would compare favourably to gym memberships and many sports. The point you seem to be missing is that nobody who practises chi gung, acupuncture, acupressure and the like claim there is anything mystical about it. Chi is no more supernatural than the air we breathe. There will always be opportunists who try to capitalise on people's ignorance and give those with real knowledge a bad name. The sad thing is, your skepticism is just ignorance in another form.

Krista Huls

reply: Thank you for setting the record straight and helping me gain knowledge and remove my ignorance about chi. But I am a bit puzzled. On the one hand you dismiss out of hand the beliefs of others who, like you, think chi is real. Yet, you say you've never heard of such notions. Then, you say that there is nothing mystical about chi. I agree. But then you say that those who have not felt chi can't know chi; or, in short, to know chi is to feel chi. I agree with that, too. But it is a giant epistemological leap to conclude that one's subjective experience defines reality, which is what you seem to be claiming. For, despite your subjective feelings of energy, no objective detection or measurement of energy has ever been made of chi. I find this mysterious. Every other energy we can feel, we can also detect and measure objectively.

You say that chi is no more supernatural than the air we breathe. Well, if you followed that up with the claim that chi is just the feeling we get when we breathe a certain way and introduce more oxygen to blood stream, etc., then I might think you were a serious investigator of these things. As it is, you come across as someone who is easily satisfied with an explanation that fits what you want to believe and who does not seek contrary evidence in an effort to avoid error. Your observations are unlikely to assist anyone investigating these matters.

Krista replies

23 Aug 2000

Feel free to stay ignorant about chi or anything else, it is you who is missing out. You too are letting your subjective experience (or rather lack of) define

your idea of reality by claiming there is no such thing as chi just because you haven't seen, felt or measured it. People just like you once denied the existence of germs, molecules, the earth being round and many other things that they had not seen, felt or measured. My point was that it's pretty closed-minded to attack something if you have never experienced it or tried to experience it. You have every right to doubt phenomena that you have no proof of, I too doubt a lot of things I hear, but I am not so arrogant as to completely dismiss them just because they are outside my realm of experience. I was pretty skeptical about chi when I first started chi gung (energy cultivation) practise - my objective was to improve my kempo through relaxation and grounding my stance in tai chi, but I have felt something called chi, prana, life force, energy, call it what you will, that flows through my body when I do certain tai chi exercises, it's not something I can explain any other way.

Krista Huls

reply: I believe you.

10 Dec 99

First off, I like the page. I tend to be a skeptic. I don't try to be, but basically I just have a hard time buying all that crap. For things I'm not informed enough to dispel in my mind, but doubt anyway, the dictionary is really enlightening.

Basically I read the comments on Chi power and Chi gung, and although I don't want to spend too much time on this, I felt I had something to add for the side of skepticism. So if there's room to post this, and it sounds worthy, I'd appreciate it.

Hasn't anyone who ever took any Chi based arts ever had a decent working knowledge of physiology? Chi-based arts have been around for hundreds of years with thousands of people practicing it for many hours. All these Chi effects a result of the fact that over all these years Chi practitioners have learned to manipulate the body to create a variety of physiological effects. I took Tai Chi and Kung Fu from the same instructor and I could tell that a lot of the effects I felt were simply results of changes in blood flow and muscle tension resulting from precise exertion. Even my instructor admitted these things played a role. Increased blood flow causes heat; releasing of tensed muscles causes what can be interpreted as waves of pleasure. I could try to give specific examples from my experiences, but I guess the most well known example would be how you get a head rush or things get dark when you stand up too fast from sitting because of blood flow. It's augmented because people really want to believe and that affects their interpretations and memories of what happens. If they weren't, they might assume their muscles, circulatory, and nervous systems were reacting to strange positions instead of attributing it to a mystical power. The whole mystical power idea probably comes from the origins of the Chi arts when so little was known about physiology that appropriate explanations were

beyond their capacity so it was attributed to mystical powers. Bigger arms, legs, and strength as well as the burn from weight lifting aren't considered to originate from mystical sources and neither should the sensations of Tai Chi and similar exercise.

Scott Hartl

For several years I practiced Asian martial arts for fun and fitness. Last year, however, I quit altogether when the claims made by certain practitioners about the extraordinary feats of Chi Kung (Qi-Gong) they had performed or witnessed became too much for me to remain silent about, and I was made unwelcome for not sharing the belief they had in them.

In my city, London, Ontario, Canada, there are more than thirty-five martial arts schools, teaching over 3,000 students, many of them children. Not all of these schools cultivate a mystical approach to martial arts, but many of them do. One local teacher claimed that his own instructor could teach merely by touching - the transmitted chi contained the day's lesson!

Martial arts literature is resplendent with claims about Chi K'ung. A full page advertisement in "Inside Kung-Fu" magazine boasts that the "Scientific Premium Company USA" can "instruct you how to develop Chi Power." For a mere \$47.95 (plus shipping and handling) you receive a "Chi Power Poster, Chi Power Plus Booklet...plus instructions of how to create a Chi Power Voice." An additional \$29.95 gets you a "Pressure Point Chart." Says the blurb, "Move objects with Chi Power without touching them. Move an object with your eyes only. Extinguish a candle flame with your eyes only. Lift a bowl of water with Yin Chi...repel birds, dogs, with your eyes only...erase pain completely with Pressure Points...for most, it works the first day! But if you need help phone us toll free!"

I have so far resisted the lure of learning these "dark secrets of the Orient," but it is heartening to know that there is a 1-800 customer service line available in the event I am unable to perform such feats of Chi K'ung as "repelling birds." (Which reminds me of comedian Steven Wright's line that he "can levitate birds - but nobody cares.")

What's distressing is that this advertisement ran monthly in this magazine and a few others for more than a year. For all I know, it still is running. So it seems likely that the Scientific Premium Company is getting at least enough responses to pay for their ad.

The March/April 1994 issue of "Karate International" contains an article in which the author, James Patrick Lacy, having courageously chosen to "let science decide" describes an experiment where a master of Chi-Kung brought a fly back from the dead using his chi. Lacy describes,

"A fly is caught and put inside a small ginseng bottle...the bottle is filled with water...the fly becomes lifeless looking and the water is drained. The fly is put on a piece of paper while I watch (the Qi-Gong master) wave his healing Qi over the fly about seven times. We sit back and wait a few minutes...the experiment is concluded as I watch the fly start to walk around again."

Lacy breathlessly concludes, "many speak about authentic Qi, but few attempt to prove it in such authentic classical experiments." One can scarcely imagine why.

The consequences of all this are not insignificant. While the belief in chi is deeply rooted in Asian culture, in the west, many people are being persuaded to believe that Chi Gong can impart psychokinetic powers, invulnerability to physical injury, illness, even HIV, according to one recent article in "Inside Kung-Fu".

Students at one martial arts school I attended performed exercises to cultivate "inner power" and "body hardness," which included permitting others to strike their stomach, shins, thighs, and forearms, even solar plexus and rib cage with full power punches and kicks. Since I was not paying \$75 a month to receive internal injuries, I stopped going.

Many of those being punched over and over in the stomach to develop their "Chi power" were minors, and nothing was ever said about what the long-term consequences of such beatings might be, not to mention the immediate risk of allowing oneself to be hit. Students who were injured were admonished that they must redouble their efforts to prevent further injury!

I even know a physics major who insisted that his teacher could use his chi to send a student "flying across the room" with the merest touch. I admonished him that slugging a student and causing him to fall over is hardly evidence of psychokinetic abilities, but he was quite adamant that such a thing was possible. I put it down to [communal reinforcement](#).

Graham Broad

01 Jan 1997

I was just reading your wonderful dictionary when I came across the "bringing the fly back from the dead" story in the entry on Chi. This is an old bar bet I've done many times. Try it to impress your friends. Here's how it goes:

First catch a fly without injuring it, (this is harder than you might think!). Then you must "drown" the fly in water, (this is

also rather tricky, it's hard to keep the little guy under the water. This will take a while). Next put the "dead" fly on a paper towel. If you like you may add some magic powder (salt). Soon the fly will come back to life, (and you didn't even have to use CPR!). Now declare yourself a god and demand to be worshipped.

The reason this works is that a fly has no lungs, it can't drown. Being submerged just puts it into shock. When the fly dries out, (the salt helps to draw out the water) it seems to come back to life. I learned this trick from some old TV movie. I can't remember what it was called or what it was about, but I thought the trick was really cool.

Thanks for providing one of the best sights on the net!
Peter Sosna

30 Mar 1998

Hi Mr. Carroll, I just read your article about the Qi-Gong article, and I'm wondering why you never gave any explanation for the feats, which I've personally seen and inspected, of breaking chopsticks with paper, or bending a pole of real steel with their necks. They have offered the explanation of Qi-Gong but you have not offered any other scientific explanation. Why is that? Until you do, shouldn't we assume that they're right? I have personally inspected with my hands the bent steel, and found that it was real steel, and I inspected the chopsticks before they were broken and found them to be real and normal chopsticks as well. Where's your "scientific" explanation of these seemingly impossible feats?

Winston

reply: You don't need a "scientific" explanation of these events. They are "seemingly impossible" only because you know nothing about magic tricks and deception. Furthermore, why do you conclude that because you have been given a metaphysical explanation of an event, you should assume that explanation is the best possible until proved otherwise?

17 Jun 1996

I read what was written about "chi" in your dictionary. I think your skeptic attitude is justified. For every good thing, there is someone else who will attempt to control it or profit from it. There are many who prey on the gullibility of others. I have my own thoughts on what chi may indeed be, being a

skeptic also. After training in Kenpo and kung-fu for over a decade, I believed I have experienced many times the wonderful feeling that chi can bring. It's not supernatural but it is powerful. Probably, every athlete has experienced chi power at one time. Basically, it's just runner's high. That super juiced up feeling that comes with hours of training and pushing the body and mind to its limits. The body merely releases an adrenaline dump through the system... increasing ones strength and endurance. However; adrenaline contains cortisone like properties which, in larger than normal amounts(like those from intense exercising), can cause psychotic like reactions and illogical thought processes. An adrenaline HIGH. Just like a weak hit of LSD that only lasts 10-20 minutes.

The same thing can happen during stressful events or in individuals that suffer from panic attacks. The feeling one gets during an adrenaline high while in a controlled state like a breathdown after an intense workout can be overpowering. One is truly at one with their body. The practitioners of chi feel as though they are stronger (which they are for a little bit) and faster (which they temporarily are as well). The effect on their mind allows them to block out background stimuli and focus on their goal more effectively. All of this is what any athlete is aiming for, because it allows them to perform better. A chi master would merely be an individual who can control when their adrenaline dumps. i.e.: like a boxer when the bell rings or a swimmer seconds before the starting signal. No big mystery... The shit about healing? Refer to acupuncture or else read about how aliens brought the ancients great healing powers from Atlantis and gave us magic beans! I never give much credit to the great healing powers of chi. Better immune system? That's probably because chi practitioners are suppose to be really healthy athlete's. Know anyone who claims these powers who sits around all day snarfing back beer and cheetos?

Incidentally, this same response that describes chi as an adrenaline rush also describes the Christian feeling of "the holy spirit". From all accounts that I have heard they merely describe their brush with god's power and do no more than to describe a body's defensive response to a nervous situation. Keep up the good work.

Trevor Whitman

[more chi comments](#)



[ch'i and Chi Kung](#)

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palmistry or chiromancy

Palmistry is the practice of telling fortunes from the lines, marks, and patterns on the hands, particularly the palms.

Palmistry was practiced in many ancient cultures, such as India, China and Egypt. The first book on the subject appeared in the 15th century. The term 'chiromancy' comes from the nineteenth century palmist who went by the name of Cheiro. (The Greek word for hand is *cheir*.)

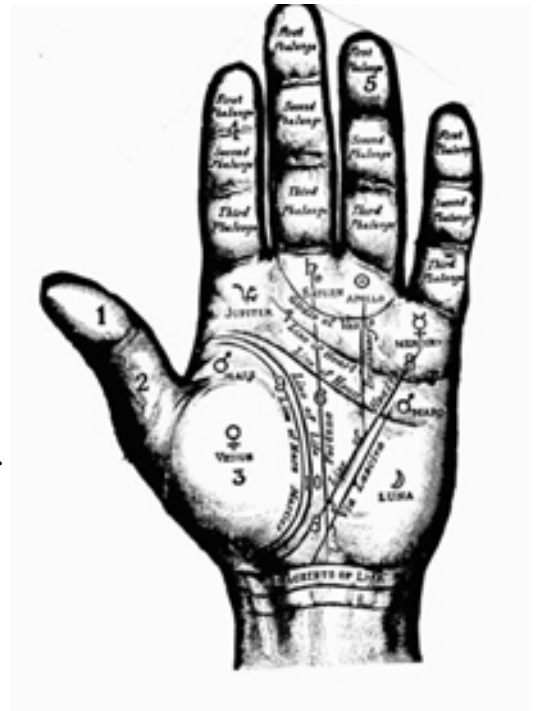
Palmistry was used during the middle ages to detect witches. It was believed that certain spots on the hand indicated one had made a pact with the Devil.

Palmistry was condemned by the Catholic Church but in the 17th century it was taught at several German universities (Pickover, 64). Britain outlawed palmistry in the 18th century. It is popular enough in America in the 20th century to deserve its own book in the [Complete Idiot's Guide](#) series.

According to Ann Fiery (*The Book of Divination*), if you are right handed, your left hand indicates inherited personality traits and your right hand indicates your individuality and fulfillment of potential. The palmist claims to be able to read the various [lines on your hand](#). These lines are given names like the *life line*, the *head line*, the *heart line*, the *Saturne line*. The life line supposedly indicates physical vitality, the head line intellectual capacity, the heart line emotional nature, etc.

Some palmistry mimics [metoposcopy](#) or [physiognomy](#). It claims that you can tell what a person is like by the shape of their hands. Creative people have fan-shaped hands and sensitive souls have narrow, pointy fingers and fleshy palms, etc. There is about as much scientific support for such notions as there is for [personology](#) or [phrenology](#). All such forms of divination seem to be based on [sympathetic magic](#) and intuition.

The authors of *The Complete Idiot's Guide to Palmistry*, Robin Giles and Lisa Lenard, claim that "palmistry works because your hand changes as you do." They claim to have a few anecdotes to back them up on this, but fail to produce any scientific support for the claim. They also think that cloning



makes it much easier for us to understand how palmistry works. "Palmistry is possible because you are represented in your hand. No two hands are alike because you--and your cells--are unique." True, and they are as likely to discover whether I will marry a rich woman or find the job of my dreams by looking at my cells as by looking at my palms.

Although you can often tell a lot about a person by examining his or her hands, there is no scientific support for the claim that you tell such things as whether you will inherit money or find your true love from the lines or marks on your hands. I suspect that many of those who think they have found support for palmistry are guilty of [confirmation bias](#) and have found it in the form of [anecdotes](#).

The desire for knowledge of the future seems to be at the root of palmistry and other forms of [divining](#) secret knowledge through paranormal revelations. Also, fortune tellers relieve us of the obligation to gather evidence and think about that evidence. Our palmists and [graphologists](#), etc., also relieve us of the difficult task of evaluating the consequences of taking various actions. They absolve us of the responsibility of decision-making. They are great comforts, therefore, to the insecure, the lazy, and the incompetent. Of course, they can also be data points, i.e., they provide one more piece of data that a person can use to make a decision. Some writers even use divination such as the [Tarot](#) or the [I Ching](#) to give them ideas for characters or plots (Pickover, 40-41). They probably could do just as well by thumbing through the Bible, a newspaper, a poetry anthology, an encyclopedia, or a skeptical dictionary.

See related entries on [astrology](#), [crystals](#), [cold reading](#), [dowsing](#), [dreams](#), [feng shui](#), [fortune telling](#), [graphology](#), [I Ching](#), [iridology](#), [metoposcopy](#), [mind readers](#), [numerology](#), [oracles](#), [phrenology](#), [physiognomy](#), [psychics](#), [reflexology](#), [runes](#), [scrying](#) and [tarot](#).

further reading

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[Park, Michael Alan. "Palmistry or Hand-Jive?" in *Science Confronts the Paranormal*, edited by Kendrick Frazier. \(Buffalo, N.Y.: Prometheus Books, 1986\).](#)

[Pickover, Clifford A. *Dreaming the Future - the fantastic story of prediction*](#)

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metoposcopy

Metoposcopy is the interpretation of facial wrinkles, especially those on the forehead, to determine the character of a person. It is also used as a type of [divination](#) and has been used in conjunction with [astrology](#). This [pseudoscience](#) was invented by the great 16th century mathematician, physician, and astrologer Gerolomo Cardano (1501-1576). Legend has it that Cardano starved himself to death at the age of seventy-five rather than live and run the risk of falsifying his horoscope and thereby discredit his beloved astrology.



The drawing reproduced here is from Cardano's [Metoposcopia](#) and shows the position of the planets on the wrinkles of the forehead. Cardano's science of forehead reading did not catch on, unlike the typhus fever of which he gave the first clinical description.

In all, Cardano worked up about 800 facial figures, each associated with astrological signs and qualities of temperament and character. He declared that one could tell by the lines on her face which woman is an adulteress and which has a hatred of any lewdness. Long, straight furrows indicate nobility of character. He claimed to be able to tell the generous from the trickster by their distinct lines and noted that having three curved furrows on the forehead proves one is a dissolute simpleton. The strongest feature of metoposcopy is that it is a non-invasive method of quickly assessing character. Its weakest features are that it has no scientific merit, although it can be easily verified by [confirmation bias](#), and it is very cumbersome to have over 800 character traits to consider.

See **related entries** on [physiognomy](#), [phrenology](#), and [personology](#).

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[metempsychosis](#)

[the new millennium](#)



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physiognomy

Physiognomy is the interpretation of outward appearance, especially the features of the face, to discover a person's predominant temper and character. Physiognomy has also been used as a kind of [divination](#) and is often associated with [astrology](#). The faces depicted here are from Barthélemy Coclès *Physiognomonica* (1533) and show eyelashes of men who are proud, vainglorious and audacious.



Coclès, like others before and after him, tried to create a science out of something each of us does from time to time: judge a person by his or her facial characteristics. Physiognomists like Coclès are wont to say things such as "people with snub noses are vain, untruthful, unstable, unfaithful and seducers." The snub-nosed of the world tend to snub their noses at such [pseudoscientific](#) drivel.

In the 18th and 19th centuries, physiognomy was used by some of its proponents as a method of detecting criminal tendencies. Many bigots and racists still use physiognomy to judge character and personality. This is not to say that there are not certain physiognomic features associated with certain genetic disorders such as [Down's syndrome](#) or [Williams Syndrome](#). The advocates of physiognomy, however, probably wouldn't know what a genetic disorder is.

See **related entries** on [metoposcopy](#) and [phrenology](#).

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[phrenology](#)

[Pitldown Hoax](#)



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personology

People with thin, soft, looser or porcelain-like skin tend to be more impressionable both emotionally and physically....Those with thin, fine hair are refined emotionally....A thick, full lower lip indicates spontaneous generosity to friends and strangers as well as talkativeness....A ski-slope upturned nose person will usually be...a poor money manager.

--[George Roman](#), personology expert

Personology is a New Age variation of the ancient pseudoscience of [physiognomy](#), which holds that outward appearance, especially the face, is the key to a person's predominant temper and character. The theory of personology, like [graphology](#), seems to be based on [sympathetic magic](#) and intuition.

Personology was developed in the 1930s by Edward Jones, a Los Angeles judge, according to [Naomi Tickle](#), author of *It's All in the Face -The Key to Finding Your Life Purpose* (1997). She is also the founder of the International Centre for Personology (not to be confused with the Personology Institute of San Diego nor the [Institute for Advanced Studies in Personology and Psychopathology](#) in Coral Gables, Florida). According to Ms. Tickle, the judge "became fascinated by the relationship between facial features and behavior patterns of the people who appeared before him in court." Then, like many naive people, he thought his personal observations were free of bias and constituted scientific data. Judge Jones even taught his "new science" to the public.

Judge Jones may have been very good at [cold reading](#), but he did not do [controlled experiments](#) to minimize the effects of the [self-deception](#) and [confirmation bias](#) that hinder all of us from properly evaluating our experiences. He should have been especially concerned about the [Forer effect](#), given the history of other similar attempts at [divining](#) character, such as [astrology](#) and [phrenology](#).

Judge Jones made the same mistake that Franz-Joseph Gall, the creator of [phrenology](#), made: he thought he observed a pattern and made no effort to scientifically test his thought. Gall thought he saw a pattern between bumps on the head and types of insanity and criminality. Jones thought he saw a pattern of facial similarities of people charged with similar crimes. Neither considered that once they came to believe in these notions, they would find it easy to confirm their beliefs.

According to Ms. Tickle, the "science" was done by Robert L. Whiteside, a newspaper editor, who "used 1068 subjects and found the accuracy to be better than 90%." Whiteside is the author of *Face Language* (New York, F. Fell Publishers; 1974). Whiteside became an advocate after watching Jones do a cold reading of his wife at a public lecture. Whiteside was amazed that Jones could know so much about his wife without knowing her. One searches in vain, however, for publications by Mr. Whiteside in scientific journals. Although Whiteside and his work have been universally ignored by the scientific community, the growth of personology has not been hindered.

Further "science" has been added by another Whiteside. According to [Bill Whiteside](#), who says he was trained by Robert Whiteside, there is a scientific connection between genetics and behavior and genetics and physical appearance. Therefore, he concludes in a lovely non sequitur, there must be a connection between behavior and physical appearance.

Over the years, [scientists] have conclusively proven that our genetic inheritance shows up in our structure and, therefore, so do our behavior patterns.

He might as well argue that since eye color is genetically determined, eye color is a key to understanding personality.

According to Bill Whiteside,

There are 68 behavioral traits in Personology. A trained observer identifies each one with sight, measurement or touch. There are five trait areas: Physical, Automatic Expression, Action, Feeling and Emotion, and Thinking. The placement of each trait into an area develops logically from its location and relationship to a corresponding area of the brain

This all sounds very scientific, but nothing we know about the brain supports these notions.

In short, personology is attractive because its proponents are amazed at how accurate it is. Their amazement is largely due to lack of understanding of such things as [the Forer effect](#), [cold reading](#), and [confirmation bias](#). The belief in personology is strengthened by the fact that its advocates seek only confirmatory data for their belief. They not only ignore all the data from the neurosciences that contradict their beliefs, they do not systematically attempt to test them in ways that might prove them false.

See related topics on [graphology](#) and [sympathetic magic](#).

further reading

[reader comments](#)

- [People Reading](#)
- ["What Does Your FACE Say About You?"](#) by George Roman, personologist, Vedic astrologer, and psychic
- [International Centre for Personology](#)
- [Face Reading in the UK](#)

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 [pentagram](#)

[Philadelphia Experiment](#) 

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[At the DOE, Dowsing
for Dollars The feds
make an investigation
into the paranormal](#)

Leon Jaroff, *Time*,
April 23, 2002

dowsing (a.k.a. water witching)



Dowsing is the action of a person--called the *dowser*--using a rod, stick or other device--called a *dowsing rod*, *dowsing stick*, *doodlebug* (when used to locate oil) or *divining rod*--to locate such things as underground water, hidden metal, buried treasure, oil, lost persons or golf balls, etc. Since dowsing is not based upon any known scientific or empirical laws or forces of nature, it should be considered a type of [divination](#). The dowser tries to locate objects by occult means.

Map dowsers use a dowsing device, usually a pendulum, over maps to locate oil, minerals, persons, water, etc. However, the prototype of a dowser is the field dowser who walks around an area using a forked stick to locate underground water. When above water, the rod points downward. (Some dowsers use two rods. The rods cross when above water.) Various theories have been given as to what causes the rods to move: electromagnetic or other subtle geological forces, suggestion from others or from geophysical observations, [ESP](#) and other paranormal explanations, etc. Most skeptics accept the explanation of William Carpenter (1852). The rod moves due to involuntary motor behavior, which Carpenter dubbed [ideomotor action](#).

Does dowsing work?

Of more interest than why the rods move, however, is the issue of whether dowsing works. Obviously, many people believe it does. Dowsing and other forms of divination have been around for thousands of years. There are large societies of dowsers in American and Europe and dowsers practice their art every day in all parts of the world. There have even been scientists in recent years who have offered proof that dowsing works. There must be something to it, then, or so it seems.

The [testimonials](#) of dowsers and those who observe them provide the main evidence for dowsing. The evidence is simple: dowsers find what they are dowsing for and they do this many times. What more proof of dowsing is needed? The fact that this pattern of *dowsing and finding something* occurs repeatedly leads many dowsers and their advocates to make the causal connection between dowsing and finding water, oil, minerals, golf balls, etc. This type of fallacious reasoning is known as [post hoc](#) reasoning and is a very common basis for belief in paranormal powers. It is essentially unscientific

and invalid. Scientific thinking includes being constantly vigilant against self-deception and being careful not to rely upon insight or intuition in place of rigorous and precise empirical testing of theoretical and causal claims. Every controlled study of dowsers, including the "[Scheunen](#)" study [see below], has shown that dowsers do no better than chance in finding what they are looking for.

Most dowsers do not consider it important to doubt their dowsing powers or to wonder if they are self-deceived. They never consider doing a [controlled scientific test](#) of their powers. They think that the fact that they have been successful over the years at dowsing is proof enough. When dowsers are scientifically tested and fail, they generally react with genuine surprise. Typical is what happened when James Randi tested some dowsers using a protocol they all agreed upon. If they could locate water in underground pipes at an 80% success rate they would get \$10,000 ([now the prize is over \\$1,000,000](#)). All the dowsers failed the test, though each claimed to be highly successful in finding water using a variety of non-scientific instruments, including a pendulum. Says Randi, "the sad fact is that dowsers are no better at finding water than anyone else. Drill a well almost anywhere in an area where water is geologically possible, and you will find it."

Some of the strongest evidence for dowsing comes from Germany and the so-called "Scheunen" or "Barn" experiment. In 1987 and 1988, more than 500 dowsers participated in more than 10,000 double-blind tests set up by physicists in a barn near Munich. (*Scheune* is the German word for barn.) The researchers claim they empirically proved "a real dowsing phenomenon." [Jim Enright of the Scripps Institute of Oceanography evaluated the data](#) and concluded that the so-called "real dowsing phenomenon" can reasonably be attributed [to chance](#). His argument is rather lengthy, but here is a taste of it:

The long and the short of it is that dowsing performance in the Scheunen experiments was not reproducible. It was not reproducible inter-individually: from a pool of some 500 self-proclaimed dowsers, the researchers selected for their critical experiments 43 candidates whom they considered most promising on the basis of preliminary testing; but the investigators themselves ended up being impressed with only a few of the performances of only a small handful from that select group. And, even more troublesome for the hypothesis, dowsing performance was not reproducible intra-individually: those few dowsers, who on one occasion or another seemed to do relatively well, were in their other comparable test series usually no more successful than the rest of the "unskilled" dowsers (Enright "Water Dowsing: the Scheunen Experiments," *Naturwissenschaften*, vol. 82 1995).

The Barn study itself is curious. It seems clearly to have been repudiated by

another German study done in 1992 by a group of German scientists and skeptics. The [Gesellschaft zur wissenschaftlichen Untersuchung von Parawissenschaften \(GWUP\)](#) [Society for the Scientific Investigation of the Parasciences] set up a three-day controlled test of some thirty dowzers, mostly from Germany. The test was done at Kassel, north of Frankfurt, and televised by a local television station. The test involved plastic pipe buried 50 centimeters in a level field through which a large flow of water could be controlled and directed. On the surface, the position of the pipe was marked with a colored stripe, so all the dowzers had to do was tell whether there was water running through the pipe. All the dowzers signed a statement that they agreed the test was a fair test of their abilities and that they expected a 100% success rate. The results were what one would expect by chance (Randi, 1995). Defenders of dowsing do not care for these results, and continue to claim that the Barn study provides scientific proof of dowsing.

another German study

Further evidence for dowsing has been presented by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) [the German Society for Technical Co-operation] sponsored by the German government. They claim, for example, that in some of their water dowsing efforts they had success rates above 80% "results which, according to responsible experts, could not be reached by means of classical methods, except with disproportionate input." Of particular interest is a report by University of Munich physicist Hans-Dieter Betz, "[Unconventional Water Detection: Field Test of the Dowsing Technique in Dry Zones](#)," published in the *Journal of Scientific Exploration* in 1995. (This is the same Betz who, with J.L. König, authored a book in 1989 on German government tests proving the ability of dowzers to detect [E-rays](#).) The report covers a ten-year period and over 2000 drillings in Sri Lanka, Zaire, Kenya, Namibia, Yemen and other countries. Especially impressive was an overall success rate of 96 percent achieved in 691 drillings in Sri Lanka. "Based on geological experience in that area, a success rate of 30-50 percent would be expected from conventional techniques alone," according to Betz. "What is both puzzling yet enormously useful is that in hundreds of cases the dowzers were able to predict the depth of the water source and the yield of the well to within 10 or 20 percent. We carefully considered the statistics of these correlations, and they far exceeded lucky guesses."

Betz ruled out chance and the use of landscape and geological features by dowzers as explanations for their success. He also ruled out "some unknown biological sensitivity to water." Betz thinks that there may be "subtle electromagnetic gradients" resulting from fissures and water flows which create changes in the electrical properties of rock and soil. Dowzers, he thinks, somehow sense these gradients in a hypersensitive state. "I'm a scientist," says Betz, "and those are my best plausible scientific hypotheses at this point....we have established that dowsing works, but have no idea how or

why."

There are some puzzling elements to Betz's conclusions, however. Most of his claims concern a single dowser named Schröter. Who observed this dowser or what conditions he worked under remain unknown. Betz is a physicist and what knowledge he has of hydrogeology is unknown. Furthermore, Betz's speculation that dowsers are hypersensitive to subtle electromagnetic gradients does not seem to be based upon scientific data. In any case, the hypothesis was not tested and I am not sure how one would go about testing such a claim. At the very least, one would expect that geological instruments would be able to detect such "electromagnetic gradients."

When others have done controlled tests of dowsers, the dowsers do no better than chance and no better than non-dowsers (Vogt and Hyman; Hyman; Enright 1995, 1996; Randi 1995). Some of Betz's data are certainly not scientific, e.g., [the subjective evaluations Schröter](#) regarding his own dowsing activities. Much of the data is little more than a report that dowsing was used by Schröter and he was successful in locating water. Betz *assumes* that chance or scientific hydrogeological procedures would not have produced the same or better results. It may be true that in one area they had a 96% success rate using dowsing techniques and that "no prospecting area with comparable sub-soil conditions is known where such outstanding results have ever been attained." However, this means nothing for establishing that dowsing had anything to do with the success. Analogous sub-soil condition seems to be an insufficient similarity to justify concluding that dowsing, rather than chance, or use of landscape or geological features, must account for the success rate.

Betz seems to have realized that without some sort of testing, reasonable people would not accept that it had been established that dowsing is a real phenomenon based upon the above types of data. He then presents what he calls "tests" to establish that dowsing is real. The first test involves Schröter again. A Norwegian drilling team dug two wells and each failed to hit water. The dowser came in and allegedly not only hit water but predicted the depth and flow. Apparently, we have the dowser's own word on this. In any case, this is not a test of dowsing, however impressive it might seem.

In the second test, Betz asserts that dowsers can tell how deep water is because "the relevant biological sensations during dowsing are sufficiently different to allow for the required process of distinction and elimination." He has no evidence for this claim. In any case, in this "test" Schröter again is asked to pick a place to dig a well and again he is successful. This time his well is near a well already dug and known to be a good site. Betz claims that there were some geological formations that would have made the dowser's predictions difficult, but again this was not a scientific test of dowsing.

The third test was a kind of contest between the dowser and a team of hydrogeologists. The scientific team, about whom we are told nothing

significant, studied an area and picked 14 places to drill. The dowser then went over the same area *after* the scientific team had made their choices and he picked 7 sites to drill. (Why they did not both pick the same number of sites is not explained.) A site yielding 100 liters per minute was considered good. The hydrogeologists hit three good sources; the dowser hit six. Clearly, the dowser won the contest. This test does not prove anything about dowsing, however. Nevertheless, I think Herr Schröter should knock on [James Randi's](#) door and be allowed to prove his paranormal powers under controlled conditions. If he is as good as he and Betz say he is, he should walk away a very rich man.

Betz has written a very long report, which is little more than a testimonial to the paranormal dowsing powers of Herr Schröter and a reiteration of the claims made for the Barn study. He would have done better to have set up a controlled, double-blind experiment with the dowser, one which does not allow the dowser himself to determine the conditions of the experiment and one which did not have as many uncontrollable variables as those rampant in the ten-year project.

See related entries on [divination](#), [feng shui](#), [geomancy](#), [ideomotor effect](#), [ley lines](#), [post hoc fallacy](#), [The Quadro QRS 250G "Detector"](#), and [self-deception](#).

further reading

[reader comments](#)

- [Testing Dowsing The Failure of the Munich Experiments](#) by J. T. Enright, *Skeptical Inquirer*, Jan/Feb 1999
- [Enright's response to Betz's and Ertel's response](#)
- [Avalanche Dowsing](#) by Rolf Manne
- ["Dowsing - Science or Humbug?"](#) by Rasmus Jansson
- [Eric Kreig's Dowsing page](#)
- [The American Society of Dowsers](#)
- [Dowsing and Geomancy Links](#)
- ["Unconventional Water Detection: Field Test of the Dowsing Technique in Dry Zones"](#) by Hans-Dieter Betz, Dept. of Physics, University of Munich, Germany
- [Dowsing for Dollars](#) by Robert T. Carroll
- [Mass Media Funk 3](#)

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[Dogon and Sirius II](#)

[dreams](#)



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[Nocturnal Emissions:
Interpreting the Sci-
Fi Channel's Dream
Team by Bill Frost](#)

dreams

Dreams are mental activities occurring during sleep. Most dreams occur in conjunction with rapid eye movements; hence, they are said to occur during [REM-sleep](#), a period typically taking up 20-25% of sleep time. Infants are believed to dream during about 50% of their sleep time. Dreams occurring during non-REM periods are said to occur during NREM-sleep.



Sleep researchers divide up sleep time into stages, mainly defined by the electrical activity of cortical neurons represented as [brain waves by an electroencephalograph \(EEG\)](#). The EEG records electrical activity in the brain by connecting [surface electrodes to the scalp](#). The stages of sleep occur in sequence and then go backward to stage 1 and REM-sleep about 90 minutes later. This cycle recurs throughout the night with the REM period typically getting longer at each recurrence. Typically, a person will have four or five REM periods a night, ranging from 5 to 45 minutes each in duration. There is some evidence, however, that REM-sleep evolved before dreaming and that the two are independent of one another.¹

The REM-dream state is a neurologically and physiologically active state. When a person is in deep sleep there is no dreaming and the waves (called *delta* waves) come at a high amplitude about 3 per second. In REM-sleep, the waves come at a rate of about 60-70 per second and the brain generates about five times as much electricity as when awake. Blood pressure, heart rate, breathing rate, etc. can change dramatically during REM-sleep. Since there is generally no external physical cause of these states, the stimuli must be internal, i.e., in the brain, or external and non-physical. The latter explanation--that dreams are a gateway to a paranormal or supernatural realm--seems to be largely without merit, although it is very ancient. Each of the following may have contributed to this misconception: dreams of dead persons, dreams of being in distant places or of traveling back or forth in time, dreams that seem prophetic, and dreams that are so strange, curious or bizarre that they call out for a paranormal interpretation. The fact that the part of the brain that controls REM is the pons, a primitive section of the brain stem that controls reflexes like breathing, would support the notion that the stimuli for the physiological changes that take place during REM originate internally.

Nowadays, hardly anyone believes that dreams are messages from the gods.

But some parapsychologists, such as [Charles Tart](#), believe that dreams offer entry into another universe, a [paranormal](#) universe of [OBEs](#), cosmic messages, and blissful nirvana. His main evidence for this seems to be his personal faith and an anecdote about his baby sitter. He claims the unnamed baby sitter (he calls her "Miss Z") had the power to leave her body during sleep. He claims he tested his [flying babysitter](#) in his sleep lab at UC Davis after she told him that she "thought everyone went to sleep, woke up in the night, floated up near the ceiling for a while, then went back to sleep." Other psychologists might have been concerned for the mental well-being of "Miss Z" and the safety of his or her children. Tart was intrigued. He put a number on a shelf, hooked up "Miss Z" to an EEG machine and put her to bed. She claims that even though she didn't read the number on the shelf, she flew around the room the first few nights. She didn't get the number right until the fourth night. Skeptics think either Tart is making up the story or it took the girl four nights to figure out how to trick the scientist. (See Tart's 'A Psychophysiological Study of Out-of-the-Body Experiences in a Selected Subject,' *Journal of the American Society for Psychical Research*, 1968, 62, pp. 3-27.) Others have investigated the question of whether the mind is open to telepathic input during sleep and have failed to find evidence of psychic ability while dreaming. Scientific research by psychiatrist Montague Ullman and parapsychologist Charles Honorton in the early 1970s at Maimonides Hospital in Brooklyn, New York, obtained chance results after an initial testing that looked positive for [psi](#) (Baker).

It is possible that dreaming may be related to the OBE. In some dreams, the dreamer is an observer, even an observer of himself. Perhaps, the brain mechanism that controls spectator dreams versus first-person dreams is the same mechanism that controls the illusion of leaving one's body in the OBE.

Tart and other parapsychologists who think that the dream state is a gateway to another world² seem to think that the key scientific evidence for this is the distinct brain waves of the various stages of sleep. They seem to think that brain waves represent states of consciousness and that sleep is an [altered state of consciousness](#). However, sleep is not a state of consciousness, but unconsciousness. Furthermore, brain waves represent not states of consciousness but electrical activity in the brain. Brain activity during dream-sleep is indeed curious. While dreaming, not only do we experience the equivalent of *hallucinations*, some of which would qualify as psychotic if we had them while awake, most of us feel like we are physically moving, acting and being acted upon, without the body actually moving. Brain stem mechanisms protect us during sleep from motor activities that could lead to self-injury or injury to others. That is, most of us are *paralyzed* during sleep. However, some people suffer a weakness or disruption of the brain stem that causes a sleep disorder where motor activities are not prevented. People who suffer from this disorder flail, sleepwalk, etc., and can be a danger to themselves or others. Such people do not leave their bodies, but they often leave their beds during sleep.

Another curious quality of brain activity during dreaming is that almost all dreams are forgotten. Dream *amnesia* is the norm. This is not due to anything paranormal or supernatural, but to weak encoding. [Memory](#) depends upon encoding the data of experience. Encoding depends upon connections in parts of the brain, which in turn depend upon connections in experience. An event with a strong emotional component is more likely to be remembered than one with no emotional component because emotional memories are recorded in one part of the brain while visual components are recorded in another. Neural connections link them. We are likely to remember dreams if we wake shortly after they occur. Even so, if we do not encode the dream by making some effort to remember it, we are likely to forget it. Some people assist memory by getting up and writing down the dream. Others find that an easier method is to stay in bed and create some associations. The easiest association is made by giving the dream a title and a purposive description. For example, a dream of being chased by a polar bear across the snow into a library might be labeled "Research the Polar Bear." Go back to sleep and you are likely to remember the dream by recalling the title.

Perhaps the most curious quality of dreams is that most of us most of the time are not aware that we are dreaming *while* we are dreaming. PET scans during dreaming have shown that there is reduced activity in the prefrontal cortex during REM-sleep and this might account for several features of the dream-state.

The prefrontal cortex lies near the front of the brain and is where the planning of behaviour and self-awareness reside. By dampening activity in this region, a person might not realise that impossible or bizarre events in a dream are unreal. This may also account for distortions in the dreamer's perception of time, the inability to reflect on their plight, and the forgetfulness that often follows waking.³

Some researchers cite the lack of prefrontal activity as a sign that the function of sleep is restorative. Sleep gives a rest to the frontal lobes, the most active part of the brain while awake.⁴ And, it may well be that [lucid dreaming](#)--being aware of dreaming while dreaming--is possible for some people because their frontal lobes don't completely shut down during dreaming. Most parapsychologists, however, are not interested in the physiology of dreaming. They focus instead on the *content* of dreams, which they believe reveals a passage to the paranormal or the supernatural.

The prophetic or clairvoyant dream is perhaps the strongest reason for believing that dreaming is a gateway to another world. Some dreams seem uncanny. They seem to foretell events. If a significant number of dreams of just a single person corresponded to future events, this would be a great benefit to humankind and we should try to find out what mechanism is at

work here. However, no such person has yet been found. Individual dreams that occasionally seem clairvoyant provide very weak evidence for clairvoyant dreams. I once had a very vivid dream of an airplane crashing nose first in San Diego (where I lived for 20 years). About ten years after the dream an airliner went down in San Diego. Am I clairvoyant? Would the case be stronger for clairvoyance if the airliner went down the day after I had my dream? I don't think so.

While it is admitted by most parapsychologists that some amount of coincidence is to be expected between what a person dreams and what actually happens, it is argued that there are too many cases of seemingly prophetic dreams to reasonably explain them all away as due to coincidence. It is true that not all prophetic dreams can be explained away as being due to coincidence. Most of them probably should be so understood, but many of them may be explained away as due to filling in memories of dreams after the facts and many others should be explained away as cases of lying. But the vast majority of prophetic dreams are probably coincidences. Such dreams are impressive to those who lack understanding of [The Law of Truly Large Numbers](#), [confirmation bias](#), and how [memory](#) works. If the odds are a million to one that any given dream is truly prophetic, then, given the number of people on earth and the average number of dreams people have during each sleep period (250 dream themes a night, according to Hines, p. 50), we should expect that every single day of our lives there will be more than 1.5 million dreams that seem clairvoyant. That is not including all the dreams had by cats, dogs and other animals, who may well be having apparently psychic experiences while they sleep, though to what purpose we can only guess. Furthermore, one would think that if dreaming were a gateway to the paranormal or supernatural, blind persons would not have their dream time restricted by their physical limitations any more than those with sight. Yet, people blind from birth do not have visual dreams.⁵

There are also those who think that the dream-state is a gateway to [past lives](#). There are some who even think that the dreams we have today are due to the fears our hunter-gatherer ancestors had. Universal dream themes, such as *being chased* or *falling* are said to harken back to our hunter-gatherer days. We have these dreams because our ancestors were chased by saber-toothed tigers and slept in trees. The evidence for such beliefs is negligible, if not non-existent, although a strong case can be made that the *form* rather than the content of such dreams might well be due to an evolutionary development linked to exercising instinctive behavior necessary for survival.

If the dream-state is a gateway to anything, it is probably a gateway to *current* personal fears and desires, rather than to ancient ones of other people. We assume dreaming has a purpose, but that purpose is more likely to be rooted in this life than in some other one. Any decent theory of dreams must try to explain why the brain stimulates the memories and [confabulations](#) that it does. It is most likely that dreams are a result of electrical energy that

stimulates memories located in various regions of the brain. Why the brain stimulates and confabulates just the memories it does remains a mystery, though there are several plausible explanations. Explanations in terms of the paranormal and supernatural are not as likely to have merit as those that limit themselves to biological and emotional mechanisms linked to brain activity.

One such hypothesis for sleep-related rhythms is that they are the brain's way of disconnecting the cortex from sensory input. When we are asleep, thalamic neurons prevent penetration of sensory information upward to the cortex.⁶ This gives the cortex a bit of a rest and explains why people who suffer sleep deprivation suffer a loss of critical thinking abilities and are prone to poor judgment. Another hypothesis is that dreaming plays a role in memory processing, especially with emotional memories. During REM-sleep, the amygdalae, which play a role in the formation and consolidation of memories of emotional experiences, are quite active.⁷ A related theory is that dreams are "watchdogs of the psyche" (Baker). Dreams are mechanisms that inform and guide our feelings and emotions. In short, this theory maintains that dreams are a way for us to express our desires and fears that, for whatever reason, need to be expressed but are not expressed when awake. If this is true, it would seem to follow that only one very intimate with the dreamer should attempt to interpret a particular dream. Dreams are very personal and speak to the specific emotional life of the dreamer. The "surest guide to the meaning of a dream is the feeling and judgment of the dreamer himself or herself, who, deep down inside, knows its real meaning" (Baker). This theory seems to be based upon the fact that most dreams are about things that have occurred within the past day or two and reflect the dreamer's present life and concerns, including unresolved feelings. This theory also implies that the interpretation of dreams can play a significant role in self-discovery; for, dreams reflect feelings and desires of which we are not conscious when awake. We may have anxieties or desires that only our dreams can reveal.

Most of us would have little difficulty in finding examples of "anxiety dreams" or "wish-fulfillment dreams" from our own experience. We may not have been aware of our desires or fears until they were awakened by the dream. Sometimes our symbolic dreams are so clear that we do not need outside assistance to help us interpret their meaning. Yet, many dreams are so strange, irrational or bizarre, that we are at a loss to find meaning in them. We seek others who claim expertise in dream interpretation to help us ferret out the hidden meanings of our dreams. Those who engage in the interpretation of dreams should be especially careful not to impose their own pet theories onto the dreams of others. For example, the dream mentioned above of being chased by a polar bear into a library might be interpreted in many different ways, but only I, my wife and one or two other persons familiar with the experience that that dream is rooted in are in a position to interpret it "correctly." I don't doubt that there are many possible interpretations and that some of them might seem quite plausible. But the "correct" one is one that has meaning for the dreamer. It was a frightening dream, just as the experience of dealing with a close relative with bipolar disorder (manic depression) was

frightening. The experience led me to the library and to bookstores to get as much information about this brain disorder as I could. I have no doubt that a Freudian or Jungian could find some latent or symbolic meaning here that I do not note, but I have no interest in their interpretations because I have no way to check them against reality and do not share their assumptions regarding the psyche. I have no idea why my brain confabulated this dream, arousing fear and disturbing sleep. Reality is bad enough without having our brains arouse more fears during sleep.

There are some people, however, who have experienced much more horrible things than I have, who dream about them every single night of their lives (Sacks). Why the brain should terrify its owner by repeating horrifying memories during sleep seems beyond comprehension. Such obsessive dreaming is of no more value than obsessive-compulsive behavior. Such people don't just have nightmares; they are too terrified to go to sleep. They need the help of a good therapist, but they are not in need of dream interpreter. If such dreamers are to be helped they must learn to control their dreams. There are various methods used to control dreaming, most of them involving visual or auditory preparations prior to sleep. Some therapists claim success with victims of recurrent nightmares by treating what is loosely called "post traumatic stress disorder." Some patients claim that they have been helped to overcome the experience of repetitious nightmares by [lucid dreaming](#). None have been helped by treating dreams as a gateway to some higher realm of consciousness.

See related entries on [clairvoyance](#), [lucid dreaming](#), and [memory](#).

further reading

[reader comments](#)

- [Dream Theory 1997: Toward a Computational Neurocognitive Model](#) by John Antrobus
- [REM Sleep = Dreaming: Only a Dream](#) by Nicholas Rosenlicht and Irwin Feinberg
- [Dream On](#) -the effects of sleep deprivation by Ed Liebowitz (review of Stanley Coren's *Sleep Thieves*)
- [The Phenomena of Human Sleep](#) by Prof.J.A. Horne, Department of Human Sciences, Loughborough University
- [Night Moves](#) (from New Scientist, April 1997)
- [How the Human Brain Developed and How the Human Mind Works](#) by Manfred Davidmann
- [NeuroLab](#)
- [Neurobiology of Dreams: Electrical Activity](#)

- [Scanners shed light on world of dreams](#) By Roger Highfield, Science Editor
- [Understanding dreams](#)
- [The content of dreams](#)
- [Association for the Study of Dreams](#) and their journal, *Dreaming*
- [Sleepnet](#) - Dream Links
- [A century later, science still grapples with Freud](#)
- [THE AMERICAN PSYCHOANALYTIC ASSOCIATION Current Ideas about REM Sleep, Dreams and Dreaming: Confirmations of Psychoanalytic Ideas about Dreams](#)

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[Schacter, Daniel L. *Searching for Memory - the brain, the mind, and the past*](#)

[\(New York: Basic Books, 1996\).](#)

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[dowsing](#)

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[Sunday Lunch with a
Mentalist June 9,
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[Self-Working Mental
Magic: 67 Foolproof
Mind-Reading Tricks](#)
by **Karl Fulves**

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[Men In Black](#)

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mentalist

A mentalist is a performer who uses trickery and deception to create the illusion of having paranormal or supernatural powers.

Mentalists and [psychics](#) rely on their subjects' [selective thinking](#). For example, James Randi tells the story of Peter Hurkos, who was astonishing people with his ability to recite intimate details about their homes and their lives. Two of the persons who had their minds read by Hurkos and who were amazed at his accuracy were invited by Randi to watch a tape of the mind readings. It was "discovered by *actual count* that this so-called psychic had, on the average, been correct in *one out of fourteen* of his statements.... Selective thinking had led them to dismiss all the apparent misses and the obviously wrong guesses and remember only the 'hits.' They were believers who *needed* this man to be the genuine article, and in spite of the results of this experiment they are still devoted fans of this charlatan" (*Flim-Flam!*, 7).

further reading

- [Psychic Stunts](#)
- [Amazing World of Shaun Tan - Mentalist](#)
- [A Mentalist Trick](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

Last updated 06/15/02

[mesmerism](#)

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oracles (prophecies *and* revelations)

An oracle is a shrine or temple sanctuary consecrated to the worship and consultation of a prophetic god. The person who transmits prophecies from a deity at such a shrine is also called an oracle, as is the prophecy or revelation itself.

Oracles are usually presented in the form of an enigmatic or ambiguous statement or allegory. "Socrates is the wisest of men." "A great king will achieve victory." Such statements can have several meanings, thus affording a greater chance of being interpreted in such a way as to make them accurate than if they were more clear and precise, such as "Socrates has seven toes" or "Cyrus will defeat the Persians at Salamis on Tuesday."

The belief in oracles can be traced to the desire to know the future. There are literally dozens of strange techniques humans have developed in an effort to [divine](#) events before they occur. Unfortunately, the only sure guide to the future is the past, and even that isn't always reliable.

See related entries on [clairvoyance](#), [confirmation bias](#), [crystals](#), [the I Ching](#), [divination](#), [Jeane Dixon](#), [Nostradamus](#), [selective thinking](#), [shoehorning](#), [Gordon-Michael Scallion](#), and [Tarot](#).



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runes

Runes are the characters of ancient [alphabets](#): Teutonic (24 letters), Anglo-Saxon (32 letters), and Scandinavian (16 letters). Runic characters are similar to Latin letters, except that they tend to have few curves and consist mostly of straight lines, suitable for carving with knives. Runic letters were used for over one thousand years. For most people, the runic alphabet died out sometime between the 13th and 16th centuries. But for those special New Age people with one foot in the world of secrets and the other in the world of mysteries, runes are used as a form of [divination](#).*



The Norse used Runic characters mostly for practical purposes, such as [marking graves](#), identifying property, or for defacing other's graves and property with graffiti, such as at [Maes Howe in Orkney](#). New Agers ignore these uses and prefer to side with superstitious 12th century

Norsemen and women who thought they could [see the future in alphabetic characters on wood or stone](#). Somehow, the image of Viking warriors, worshippers of Thor and Odin, kneeling down to cast runes to decide whether or not to invade Ireland, seems incongruous.

The word 'rune' derives from the Old Norse and Old English *run* which means "mystery." The real mystery is why anyone would think that writing the letters of an alphabet on little pieces of wood or stone, putting them in a bag, and then drawing them out and throwing them or laying them down in certain ways, would answer their questions, give them direction for the present, guide them to see the future or help them make good decisions. Runes may have gotten their reputation for being tools of divination when Christian Church leaders claimed they were used to cast magic spells or communicate with the devil. Many New Agers seem to like Tolkein, so the fact that his [Hobbits used a kind of runes](#) in their writing may have enhanced the association of runic letters with magic and mystery.

It is said that [rune reading](#) is useful for gaining spiritual insight. No doubt, it is as good as any other method. Dr. Martin D. Rayner, a professor of

physiology at the University of Hawaii School of Medicine, claims that by gazing at the runes one can tap into the subconscious and find great knowledge about oneself.

How can the random selection of marked stones tell you anything about yourself? Perhaps these Rune Interpretations are simply so evocative that each contains some point, which can be accepted as relevant to some part of what is happening at the limits of consciousness any day, any time, to anyone. That is the easiest possibility to accept from a strictly scientific standpoint. [\[The Runes Explained\]](#)

The good doctor is giving new meaning not only to his life but to *science* as well. Nevertheless, he says he has found rune reading to be "transformational" and leading to "breakthroughs", which are common goals of New Agers.

How is it that random alphabetic stone selection can be so useful? Easy. *Anything* can be a source of transformation and breakthrough if you decide to let it be. Runes, [tarot cards](#), [the I Ching](#), [enneagrams](#), [Myers-Briggs](#)...*anything* can be used to stimulate self-reflection and self-analysis. *Anything* can be used to justify coming to a decision about an unresolved matter. Coming to a decision brings relief, reduces anxiety, and may well seem like a breakthrough and transformation. Using something like rune stones to help make your decision relieves you of responsibility for it. The choice was made for you by the stones and your subconscious mind, so you are off the hook if anything goes wrong. Furthermore, since there is no standard interpretation of any of this stuff, you can always change your initial interpretation to fit new facts or desires.

When you are the oracle yourself, it is always a win-win situation.

note: Tacitus, in Ch. X of his *Germania*, describes a form of divination used by Germanic tribes:

"To divination and casting of lots, they pay attention beyond any other people. Their method of casting lots is a simple one: they cut a branch from a fruit-bearing tree and divide it into small pieces which they mark with certain distinctive signs and scatter at random onto a white cloth. Then, the priest of the community if the lots are consulted publicly, or the father of the family if it is done privately, after invoking the gods and with eyes raised to heaven, picks up three pieces, one at a time, and interprets them according to the signs previously marked upon them."

Though the signs are not described as letters of the runic alphabet, some New Agers have interpreted this passage as evidence both of the existence of runes in the first century and their use in divination. Neither seems justified from this passage alone.

There is evidence that the Norse used runes for divination before the 12th or 13th centuries, however.

further reading

[reader comments](#)

- [The Poetic Edda](#)
- [Runstenar / Rune stones](#) by Ingrid Karlmar and Urban Fredriksson
- [Ásatrú runes](#)
- [Moonphase runes as oracle](#)
- [Cool Stones](#) - and they take Visa!

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[Sai Baba](#)

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scrying

Scrying is a type of [divination](#). To scry or descry is to spy out or discover by the eye objects at a distance. In occult literature, the term is used to describe the act of gazing at a shiny stone or mirror or into a crystal ball (anything which reflects will do), to see things past and future. (When a crystal is used, scrying is known as *catoptromancy* or *crystallomancy*.) Occultists claim that if one concentrates hard enough while gazing, one can conjure up the dead because scrying allegedly clears out the consciousness and opens a direct line to the other world.

See related entry on [Raymond Moody](#).

further reading

[de Givry, Grillot. *Witchcraft, Magic & Alchemy* \(New York: Dover Books, 1971\), republication of the 1931 Houghton Mifflin Company edition, Book II, chapter viii, "the Divinatory Arts".](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)





pantheism

Pantheism is the view that Nature and God are one, that the world is divine.

Pantheism is considered to be [atheism](#) by those who posit a transcendent and separate source of the world. Thus, many Christian theologians and philosophers consider Hinduism and Buddhism, as well as the philosophy of [Spinoza](#), to be atheistic.

See **related entries** on [atheism](#), [naturalism](#), and God.

further reading

- "[Pantheism](#)" in the Catholic Encyclopedia
- [Pantheism - Natural or Scientific](#) - Paul Harrison
- [Pantheism.net](#)





reader comments:

chiropractic

7 Mar 2003

Please edit the section on Chiropractic: "a grocer from Davenport, Iowa" to indicate that DD Palmer was from Port Perry, Ontario. Yes, he was a grocer in Iowa, but he was from Port Perry Ontario.

Give Port Perry that. It's all they have.

See: http://www.chiro.cc/health_info/ddpark.htm

Gilbert Boehm

reply: It's true. Palmer was born in Canada and I should have been more careful not to try to give an American city credit for this great man. My patriotic fervor may have gotten the best of me!

8 Feb 2000

In the reader's comments on chiropractic, one of the comments contains this gem

Now, how does our body interact or communicate with itself and with the environment. Guess what, 100% through the nervous system. By manipulation of the articulations of the spinal column the interference is removed and the body is let to heal on its own. We as chiropractors are not healing the body, but letting the body heal on its own.

Your paragraph in reply to that misses the fact that a huge amount of the body's communication with itself is done via hormones and other chemicals, which travel through the blood, not the nervous system.

Another one is this: "Yes, I admit, the research in this area is just beginning, but also remember, the chiropractic profession is only 100 years old and it's not like we had the government and other funding money we do today"

You might wish to point out that other areas of medicine are also less than 100

years old, and have overwhelming scientific evidence and have saved and improved countless lives. Insulin comes to mind.

Paul Murray

24 Aug 1999

I read with interest your information about chiropractic. The philosophy of chiropractic has truly been a stumbling block for my educational development as a chiropractic physician. The concept of a subluxation is difficult to swallow I admit; however, it is the antiquated theory that has many rational individuals up in arms, including myself. A chiropractic consensus panel defined subluxation as "a motion segment, in which alignment, movement integrity, and/or physiological function are altered, although contact between joint surfaces remain intact." (Gatterman M, Hansen D. "Development of chiropractic nomenclature through consensus," Journal of Manipulative Physiological Therapy 1994;17:302-9.) Granted, this definition is very broad in nature, but improved.

I do recognize this entity; however, I do not utilize the verbiage. Instead, I use terms such as joint complex dysfunction with dysafferentation or segmental dysfunction to recognize the neurological sequelae (maybe too strong of a word) that occurs (segment=joint). These references are used in the J Manipulative Physio Ther and/or the ICD-9 to describe the improper term subluxation. The neurological sequelae include but are not limited to pain, loss of intersegmental motion, muscle spasm, muscle hypertonicity, aberrant joint biomechanics, trigger points, and local biochemical changes. These states affect the neuraxis (central nervous system) in that compensation to normal biomechanics has to occur in order for function to be maintained. Additionally, the neuraxis undergoes plastic changes to compensate. Lastly, pain and dysfunction affect the patient in such a way as to lead to psychological problems as depression and sleep disturbances. Granted, the last statement is more prominent in chronic cases, but these problems do occur.

My attitude may chap many of my fellow chiropractors' asses. Yet, this is where chiropractic research is heading.

Of course, as you point out, chiropractic is not merely for low back pain, but it includes the treatment of other type-M disorders, which is true. As a matter of fact, the recent Manga report from Canada reports that chiropractors should be considered equal to primary care physicians in the treatment of Type-M disorders. I do agree with this. We, as chiropractors, treat neuromusculoskeletal disorders well if we do not limit our practice to the "acme" of chiropractic, the adjustment. It is a powerful tool/treatment in our arsenal; however, physiological therapeutics (heat, ice, and electrical modalities; manual resistance techniques; and rehabilitative exercises), education, and nutrition are utilized as well in the treatment of patients. Using these tools in the treatment paradigm allows DC's to more effectively treat their

patients. Of course, history, appropriate diagnostic testing, and diagnosis must precede treatment.

By the way, [Barrett](#) and his followers and the national committee on health care fraud [[National Council on Health Fraud](#)] are questionable additional sources. (I do understand why they are present.) From my reading of their information, I find their resources to be outdated; hence, many of their arguments are fallacious based upon updated literature. Granted, some chiropractors fall into the path as Barrett, et al., ad hoc hypothesis(?) and other fallacies. Solutions: links to the [American Chiropractic Association](#), [Federation \[Foundation?\] of Chiropractic Education and Research](#), [Pubmed](#) with Key Terms as Chiropractic, Seamen, Rosner, J Manipulative Physiol Ther, etc.

Todd Hostetler, Senior Chiropractic Intern

reply: Since some of your colleagues seem to base their practices and theories on questionable sources, I think I'll keep my links to Barrett and the National Council on Health Fraud. In addition to their outdated critiques, they also critique some of the newfangled notions emerging in your profession.

31 Aug 1996

In regard to your comments on chiropractic:

First, your understanding of chiropractic philosophy is only partially correct. It is true that D.D. Palmer believed subluxations (vertebrae out of alignment or not showing proper biomechanical motion) could cause nervous "irritation", and that this, in turn, could cause a disturbance of normal physiologic function. This is only part of a bigger picture, however. The basic chiropractic philosophy is that the human body is inherently healthy and has the ability to heal itself when needed. This is apparent when you think about it--is it the band-aid that heals your finger when you cut it, or is it the cast that heals a fracture when you break a bone? Of course not, the body will heal itself--as long as there is nothing to interfere with the healing process.

reply: The human body is "inherently healthy?" You're kidding, right? Why do we get sick and die, then? Anyway, if by saying that the human body has the ability to heal itself you mean that healthy people have functioning immune systems, blood will coagulate and scab when we are cut, etc., who could disagree with that?

Now, how does our body interact or communicate with itself and with the environment. Guess what, 100% through the nervous system. By manipulation of the articulations of the spinal column the interference is removed and the body is let to heal on its own. We as chiropractors are not healing the body, but letting the body heal on its own.

reply: If the body can heal on its own, why does it need your manipulations of articulations? The idea that without your manipulations, the body would not heal on its own, does not seem to be supported by the empirical evidence of most people's lower back pain going away on its own. Comparing your manipulations with putting a cast on a broken arm is misleading. We know what function the cast plays; you are *assuming* the role played by manipulation.

Palmer did suggest that nerve irritation was mostly due to a subluxation impinging on a nerve, and this would then lead to nerve dysfunction. This bone pinching nerve theory has been proven to be a factor only under certain circumstances such as when there are advanced degenerative changes. There have been numerous studies, however, that found many indirect pathways for subluxation to cause nerve irritation. These are too complex and technical to discuss here but can be made available.

reply: Very interesting, but if nerves are "irritated" or damaged and this irritation causes pain, why wouldn't manipulation cause further irritation and damage and, therefore, more pain?

Remember also that this is only a philosophy, and as such should be changing as new data support some ideas and refute others. The philosophy of today is different although core components still remain. I also know that the accredited colleges or American Chiropractic Association would not endorse chiropractic treating heart disease, diabetes, cancer, and other serious and life-threatening situations--these are beyond our scope of practice. But who is to say these conditions and others such as asthma, ulcers and other GI troubles to name a few, could not be helped by chiropractic--at least in the beginning stages, or even prevented.

reply: Sounds like wishful thinking to me.

Yes, I admit, the research in this area is just beginning, but also remember, the chiropractic profession is only 100 years old and it's not like we had the government and other funding money we do today. Also, let me remind you about a recent New England Journal of Medicine article that stated only 15% of medical practices are validated by double-blinded, controlled clinical trials. Am I saying because the medical profession doesn't have the research that chiropractic does not need it either? Of course not. What I am relating is that in order to do research you must first have an idea to study. Also remember that research in not everything, clinical results are just as important. What is probably going to end up happening is that chiropractic will be used in conjunction with other therapies in a "multidisciplinary" approach for these visceral conditions. A typical chiropractic practice is made up of only a few percentage (five or less) of these "organic" conditions.

reply: I'm not one for trying to predict the future of such things as chiropractic, but I do have some opinions about spending our tax dollars testing metaphysical hypotheses and empirical possibilities. The government should stay out of metaphysics and before spending money on a possible cure for cancer by meditating underwater while injecting bee pollen there should be some solid empirical or theoretical evidence that such a practice is likely to prove beneficial. I'm not opposed to "pure" research, or experiment by trial and error, but with limited resources to spend, decisions on how to spend it should be based on some sort of merit system. The minimal requirement of such a system should be the ability to establish empirical or theoretical probability that a medical intervention will be effective. I don't say that this minimal probability be as high a standard as "beyond a reasonable doubt." Such a high standard would end all funding. But some proof beyond mere possibility should be required.

Now for your comment about low back pain. Apparently you have absolutely no idea what you are talking about here because an overwhelming body of evidence supports the superior outcomes (subjective, objective, clinical, whatever you want) of manipulation for low back pain. Perhaps you fail to understand the scope of low back pain in the United States and around the world. About 80% of adults will experience disabling low back pain at some point in their lives. While it is true that low back complaints are generally self-limiting, I would like you to name the majority of conditions seen in clinic or hospitals that are not. That is not even relevant whatsoever as to whether a condition should be treated or not. What determines a treatments effectiveness is if it can effect the condition in less time than that condition's natural history. The natural history for low back complaints is four weeks (not 2 as you stated). Now can you imagine having low back complaints for four weeks--or even two. Remember low back complaints affect PEOPLE. These people have lives, jobs, kids, hobbies. What happens to a person when they are not able to do these things.

reply: Well, it depends on the person. Some people have chronic back pain and are also employed as roofers or in jobs requiring a lot of lifting. They may have to find another line of employment or make sure they wear a back support and take care in how they bend to lift things (learn to squat instead of bending over with the legs stiff). Getting "cranked", as one of my friends calls it when he goes to his chiropractor, provides little more than temporary relief. This friend used to be a roofer. He once called me at about 5:30 in the morning to help him. His back pain was so great he couldn't even get out of bed to go to the bathroom. He was lying on the floor when I came over and he was still there in the afternoon when I returned after work. He was taken by ambulance to the hospital. He's been going to a chiropractor for years but this time he consulted a surgeon. The thought of going under the knife was so unpleasant that he eventually changed professions rather than deal with another potential paralysis episode. He took so long to decide what to do that eventually he healed on his own. He wears a back brace whenever he does lifting and has a job

which puts very little strain on his lower back. As far as I know, he hasn't needed to go to his chiropractor since he changed jobs. I think it was changing jobs, not the years of "cranking" that relieved him of his pain.

Low back complaints are the second largest reason for a visit to a primary care physician. Low back complaints cost more than AIDS, heart disease, and cancer combined in terms of cost of medical treatment and indirect costs from work loss/decrease in productivity. Low back complaints are the leading cause of disability in Americans ages 25-45. Low back complaints are the number one reason for medical discharge from the military. Low back complaints are the number one reason for claims to worker's compensation, and these claims (30% of total claims) make up 80% of worker's compensation costs, again, because of high cost of medical treatment and work loss. In short, low back pain is a MAJOR, BIG-TIME problem in America and around the world. For you to make it sound as if low back pain is no big deal and will disappear without a problem is a gigantic mistake and just goes to prove your lack of understanding or research on the subject. By effecting the complaint in a faster time period than natural history you get that person back on the job faster, you take that person out of pain and suffering, you decrease the chance of that condition becoming chronic, and overall, you increase that person's quality of life. Apparently you have dealt with little or no people who experience chronic low back pain, or increased pain because of failed back surgery. These people's entire lives are affected.

reply: I'm sorry if you took my meaning to be that lower back pain "is no big deal." I did not intend to imply that nor did I intend to imply that no one ever benefits from treatment by chiropractors, physicians, massage therapists, exercise class, etc. If you want to bring in worker's compensation complaints, however, then we'll have to discuss fraud, which is beyond the scope of this article or these comments. Anyway, I have known people who've had successful back surgery. It changed their lives--- for the better.

They are depressed, some cannot work, some can barely walk, and some have lost their families because of it. Even if you can reduce that person's pain by two weeks you have done a great service. Also by getting treatment instead of just leaving it, other more dangerous causes of low back pain (cancer, organ disease, etc.) can be ruled out, and healing can be supervised to ensure a more complete job with less chance of chronicity or repeat back complaint.

reply: The question is, though, if someone is seriously disabled, would they get equal or better results elsewhere. You haven't convinced me that if I ever find myself in such a condition I would be better off consulting a chiropractor than an M.D.

You also made reference to some of the above conditions as other causes of back pain (cancer, etc.) as a reason people should not go to a chiropractor.

This is absolutely ridiculous. Chiropractors are trained to diagnose and rule-out other causes of back pain such as these. If the diagnosis falls outside of our scope of practice we make the appropriate referral. This is no different than the general MD who make the referral to the heart surgeon or other specialist.

reply: There is one difference between a general M.D. and a chiropractor, and it is that difference which leads many people to seek the services of the latter: the M.D. sees back pain as a sign that something is wrong with the body and it is possible that the M.D. will recommend drugs or surgery to relieve the pain. The chiropractor is likely to see back pain as a sign that something is out of alignment and is unlikely to recommend surgery.

Anyway, who do you think is more likely to know that a back complaint may have a more serious cause. An MD who sees a few back cases a week, or a chiropractor who sees a hundred backs a week. To become a chiropractor it takes at least 7 years of schooling. We are DOCTORS, Doctors of Chiropractic, and we are recognized with all the other powers and rights of other physicians. While you're at it I think you need some work on the chiropractic education.

reply: I don't say that "it is more likely" that back complaints have a serious cause. I just say that the cause may be serious. And, I'm sure you've come a long way from the days of Dr. Palmer.

Back to chiropractic documentation for low back pain. Recently the Department of Health's Agency for Health Care Policy and Research released a guideline entitled "Understanding Acute Low Back Pain in Adults". This is a major guideline with the purpose of defining what treatment(s) should be used for certain conditions. These guidelines are used by our government as well as in other countries, by health care professionals around the world, and by third-party payers. These guidelines are made by gathering a multidisciplinary panel of experts in that particular field and then finding and evaluating all the research for a particular topic. For low back pain the panel said that spinal manipulation is the best early treatment. What do you mean there are no reports on chiropractic and back pain--they reviewed all the valid studies from every discipline in the world!!!

reply: I don't mean anything by "there are no reports on chiropractic and back pain," because I never said such a thing.

Now why should chiropractic be the first method of therapy for low back pain? There are basically 3 reasons:

1. Chiropractic specifically, and spinal manipulation generally, has been proven to be the most effective early treatment. This fact can simply not be refuted, period.

reply: Well, since it can't be refuted there is no need to try. But some

people believe that to exclude contrary evidence a priori is not good scientific technique. I believe that taking all the evidence, including the reports you cite, the case is not as strong as you think and it certainly isn't irrefutable.

2. Chiropractic is very safe. There have been no reports of complications from low back manipulation by chiropractors in the literature, although the risk has been estimated as a complication per 200 million manipulations. That would make chiropractic 10,000 times safer than anesthesia alone. Even taking aspirin is far more dangerous than having spinal manipulation. Now why would surgery or medications be indicated for a condition that you call self-limiting. In this case medical treatment is much more dangerous than no treatment alone. Now please don't get me wrong, medical and surgical treatment is necessary sometimes, but only in very specific and well-defined circumstances.

reply: I can't argue with you here. (Except for your reference to me claiming something about a condition being "self-limiting;" I don't say that. In fact, I don't even know what you are talking about.) The dangers from drug reactions or potential addictions, anesthesia, surgical misadventures of high magnitude (euphemism for "killed the patient") are greater than the dangers of chiropractic. This is one of the main attractions of chiropractic and other alternative health practices. Unfortunately, being safer does not equate with being better. It would, if you were talking about comparing two interventions used for exactly the same conditions which produce very similar results. Then, the safer would be the wiser choice.

3. Chiropractic is without a doubt less costly than medical treatment. It is true that we have a larger number of visits or treatments per condition, but that does not matter one bit. The name of the game is COST-EFFECTIVENESS.

reply: I'll take your word for it. Again, though, being cheaper would be better only if we were comparing interventions for the same conditions which produce the same results.

Now let's hear you respond to this. If you refute anything I say all I ask is that you SHOW ME YOUR DATA. If you want any information from me I will gladly get it to you.

Brian V. Jongeward, D.C.

reply: You have already claimed that you can't be refuted. So, I won't try to refute you, but thanks for the offer.

24 Sep 1996

Interesting stuff. As a fully paid up skeptic/cynic from my early teens, I found some of the stuff very interesting indeed. Not that I agree with all of your

comments. I found your article on Chiropractic rather extreme - and noted the many responses from those who benefit temporarily from the "realignment". I visit a chiropractor from time to time, and believe me, the temporary relief is worth the cost (no more expensive than the painkillers the regular medics would prescribe). I don't think its any more bizarre to believe in the therapeutic effects of chiropractic than the therapeutic effects of regular exercise.

reply: My main concern with chiropractic is the theory of subluxations and other theoretical explanations given for a variety of ailments extending way beyond lower back pain. As far as treating lower back pain goes, your testimony supports that of many other people who go to chiropractors and massage therapists on a regular basis.

*My second reason for writing is to ask - why only discuss 'alternative medicine'? How about regular medicine? Having seen two people die recently from cancer, I was less than impressed with their treatment by the medics. For a start, no one pointed out to them that they were probably going to die (I suspect they stood a snowball's chance in hell of living). Instead they applied 'therapy' - chemotherapy. This seems to be the modern equivalent of bloodletting as a curative practice, except it is undoubtedly more painful and distressing. You will note I provide only anecdotal evidence here. I have not actually counted the proportion of chemically treated bodies which actually walk out of hospitals *cured*. So when are we going to see 'Chemotherapy' and 'Radical Mastectomy' in the index?*

Bob Sugden

reply: I discuss only alternative medicine because of its general pseudoscientific or unscientific approach. Alternative medicine is generally based upon untested claims and is mainly appealing to desperate people. A dying person is easy prey for charlatans, not that there are not charlatans in traditional medicine. In fact, many of those offering miracle cures for cancer are physicians who were trained in traditional medicine. I don't discuss alternative medicine because the field is dominated by charlatans. It is because their cures are based more on hope than on evidence, that I discuss alternative medicine. Of course, treatment with chemotherapy involves hope on the part of both patient and physician. But, anyone who expects traditional medicine to stop people from dying will be disappointed. I don't criticize alternative medicine because it is fallible and imperfect. I, too, have lost some loved ones to cancer. Chemotherapy did not help them. Would they be alive today if they had taken shark cartilage and coffee enemas? There is no way to know, but I doubt it. However, your characterization of chemotherapy to bloodletting is unfair. I wouldn't even compare coffee enemas (an alternative medicine therapy for cancer) to bloodletting. I understand your implication that traditional medicine sometimes recommends therapies that turn out to be useless or harmful. I do not agree, however, that that fact puts traditional medicine in the same class as alternative medicine.

Finally, I discuss only alternative medicine because its very nature encourages people to experiment on themselves with either no theoretical guidance or with faith in the guidance of untested and purely speculative notions. If people want to do this to themselves, that is their business. And it is not difficult to see why a dying person would seek out any therapy, no matter how ridiculous it might seem. At death's door, you and I might be tempted to wear a pyramid hat and let cats rub our bellies, if someone told us that it might help us survive a little longer. We might also be tempted to continue with chemotherapy, even though the prospects are not promising. That fact does not put chemotherapy in the same class as wearing a pyramid hat.

20 Nov 96

Would it be fair to say that some alternative therapies are "marginal" therapies - acknowledged to have favourable effects, but also steeped in nonsense? Shouldn't the skeptical community hold two views on these therapies, not just one all-encompassing negative view, and acknowledge that they possibly do have some value?

reply: I think it's fair to say that some alternative or complementary therapies are "marginal" but I can't speak for the skeptical community, if there is such a thing. I don't know how other skeptics feel, but I think anybody should be able to offer and receive not only "marginal" but "non-sensical" therapies as well...as long as they don't endanger anybody's life but their own and as long as they don't expect the taxpayer or insurance company to foot the bill.

Chiropractic and Acupuncture spring to mind, but because I know more about chiropractic I will concentrate on that. The view that correction of subluxations can correct a wide range of diseases, including what might be called "non-mechanical" - ear infection for instance - is patently ludicrous. Nevertheless, apparently intelligent people, qualified chiropractors, will diligently represent these views if you ask them. I know, because I have asked, and I have been given these ludicrous answers.

(I am reminded of mentioning to my chiropractor that I had a heavy cold, and it might be fairer on his other patients if I avoided breathing directly on his HiLo treatment table. He explained that it wasn't a problem if you didn't believe in the "Germ Theory.")

But chiropractic therapies most certainly do create a sense of well-being, relaxation, cessation of muscle tension, correction of mechanical injury like whiplash, and relief of muscle spasm like a "crick in the neck." Anecdotal evidence suggests that chiropractic therapy really is good for lower back pain. I don't expect chiropractic to correct my back problems, but I do expect and I do

receive significant symptomatic relief from manipulation. Pretty much the same effect as a good sports massage, but in different areas:

- a) There seems to be genuine benefit - beyond the placebo effect.*
- b) Correction of subluxation to relieve muscle spasm doesn't intuitively seem unreasonable.*
- c) Chiropractic (by trained practitioners) seems not to be inherently risky.*

(Yeah, I know I said "seems" three times then. Lack of hard evidence.)

So long as we can ignore the other rubbish, (difficult, I know) perhaps the skeptical community can afford to be not quite so dismissive of Chiropractic. By all means trash stuff like Iridology and Aromatherapy; but let's be a little more agnostic about some therapies which at least partly have some basis in common sense.

I guess it comes back to the old skeptical quandry - where do you draw the line between "Prove it to me" and "Don't waste my time trying to prove it to me." I'm happy to place Iridology in the "Don't waste my time" basket, but let's be a little more generous to Chiropractic.

Mark Roberts, Auckland, New Zealand

reply: I don't think I've been that unkind to Chiropractic, but then I'm not a chiropractor. In any case, I'm sure the iridologists and aromatherapists would disagree with your assessment of their arts. And I guarantee that when I get around to writing entries in the *Skeptic's Dictionary* for those subjects I will get some unfriendly mail blasting me for criticizing what I haven't tried and extolling the virtues of their sciences whose proof is in their many success stories.



[Chiropractic](#)

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Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

1

October 8, 1995. "Who is abusing the children of Wenatchee?" by Armin Brott (Knight-Ridder News Service Columnist) in *The Sacramento Bee*, **Forum**, tells a pathetic story, too often repeated in recent years. The United States Supreme Court has recently (Nov. 1994) refused to hear an appeal of [Bill and Kathy Swan](#) who have spent 50 months in prison and had their daughter taken away from them based on the hearsay testimony of day-care workers. The children did not testify and there was no physical evidence of abuse. The court did not comment on their refusal to hear the appeal but in 1990 they ruled that defendants can be convicted of child abuse without confronting their accusers when there is assurance of the reliability of the hearsay testimony. Such a broad ruling opens the door to abuse by overzealous prosecutors and other alleged defenders of children. Professor Charles Nesson of Harvard, an expert on the law of evidence who submitted a brief supporting the appeal, called the Court's refusal to hear the appeal "the most extreme example of erosion [of the constitutional guarantee that criminal defendants have a right to confront witnesses against them] of which I am aware. It seems that the Court is saying that people can be convicted of child abuse without making a reasonable effort to discover whether the abuse even happened. Hearsay evidence from a "reliable source" is all that is needed. The emotional nature of this issue probably guarantees that clear thinking and fairness will be subordinated to the desire to defend innocent children.

The Supreme Court ruling also opens the door for overzealous prosecutors and law enforcement who are prone to the same kinds of misguided abuses as the trauma-search therapists. These trauma-search cops have destroyed more than one community, including pastoral Wenatchee in rural Washington state. There, a local group has formed to fight back against trauma-search cops and therapists. The group calls itself [Concerned Citizens for Legal Accountability](#), but it is much more than that. It is a kind of WWW [clearinghouse for stories](#) of legal and psychological abuse by police, child protective services and therapists. The people of Wenatchee realize that what happened to their community could happen anywhere in America. All it takes is one zealous cop--in this case Detective Bob Perez--to get things started and he can turn a troubled youth's lies and fantasies into a sex ring involving 30 to 50 children led in orgies in church by a local Pentecostal pastor and his wife. It is good news that Pastor Robert Roberson and his wife, Connie, were found innocent of all charges in December 1995. The bad news is that their lives and the lives of many children have been damaged by a crusading cop and his accomplices in Child Protective Services and the District Attorney's office. Perez and Gary Riesen, prosecuting attorney, have charged more than 80 adults with having weekly orgies with children. More than 25 have pleaded guilty to various offenses, though some, like the Rev. Roberson and his wife, have fought the charges, risking imprisonment and loss of their children. Eleven people have been convicted after trials; fifteen plea

bargained, though most of them have since recanted. Many of those charged are illiterate and on welfare. Five are developmentally disabled, two have severe emotional problems, two have physical disabilities and two others are mentally ill. "These conditions don't exclude the possibility that all are guilty of child abuse, but they certainly underscore the fact that Perez and his cohorts have been prosecuting some vulnerable people." [Brott, *Bee*]

Unlike the Swans, who lost their daughter and have been imprisoned for more than four years, the Wenatchee witchhunt did not begin with charges from a mentally ill day care worker. In Wenatchee they began with charges from a 15-year old girl with an IQ of 60 who tried to kill her foster father because he wouldn't let her have sex with her boyfriend in the house. By the time Perez finished interrogating the troubled teen, she had accused her foster father of years of sexual abuse. She later recanted her charges. Then Perez went after her 10-year old foster sister and by the time he was finished interrogating her she had identified 22 places where she said she'd been molested, including Pastor Roberson's church. Roberson made the mistake of speaking publicly about Perez and his methods of interrogation. Five days after his public denunciation of the detective's tactics, Roberson and his wife were in jail on charges of running weekly orgies in their church.

One would think that with all those convictions, there must be some truth to Perez's accusations. However, besides his word for it and the testimony of children who been interrogated by Perez, the evidence for a child abuse ring is non-existent. Perez keeps no notes and has no audio or video tapes of any of his interrogations. Perhaps he learned from the McMartin trials that such tapes can be damaging as they are likely to show zealous cops and therapists leading on and coercing children into tales of abuse. Plus, there is the testimony of the children who have refused to go along with him. One says he threatened to arrest her mother if the child didn't admit she'd been abused. Another claims that he made her lie. Another was tracked down in California by Perez himself, brought back to Washington and placed in a mental facility in Idaho where she was given "treatment" because she wouldn't testify that her parents had abused her. When she kept denying that she'd been abused she was told by the "counselors" that she was in denial and that she'd "come around soon." [Brott, *Bee*]

Prosecutor Riesen notes: "look at the convictions we've got. If Perez wasn't going by the book, the courts would have had something to say about it." [Brott, *Bee*] The courts may have something to say about it eventually, but I wouldn't count on it being right. No judge wants to appear to be a friend of child abusers. Few crimes are more repulsive than child abuse. I'm sure Perez and Riesen come off as saintly guardians of children battling the evil abusers because they really believe that is what they are. And they are not alone in their delusion: they are joined by physicians, nurses, day care workers, social workers, judges and juries. Evidence doesn't matter here. The children are what matter. And, yes, it is the children who are being abused here, but they are not the only ones. It should terrify anyone in this society to realize that they could be next in line to be guilty even if proven innocent and that they and their children might be next to be abused by a legal system gone crazy.

In California, the first and, as far as I know, only criminal trial based on recovered

memory was that of George Franklin Sr. Dr. Lenore Terr was the prosecution's expert witness. In 1990, Franklin was found guilty of murdering a child twenty years earlier. The main witness against him was his 30-year-old daughter, Eileen Lipsker, who said she repressed the memory of the murder until one day when she had a "flashback" while looking into her own daughter's eyes. Suddenly, she said, she remembered her father molesting her 8-year-old girl friend and smashing the child's skull with a rock. Eileen had told Terr that as a child she had torn out her hair, creating a bloody bald spot on her head. In her book, *Unchained Memories*, Terr writes: "Most likely, young Eileen unconsciously set out to duplicate the horrible wound she had seen on Susan Nason's head." Eileen's mother Leah Franklin, however, says she does not remember seeing a bald spot on her daughter's hair during her childhood years when she combed, braided and cut her child's hair. Leah Franklin also says she gave prosecutors more than forty photographs of Eileen as a child and that none of them showed any hair problems.

Eileen Lipsker also said that she now remembers her father threatening to kill her if she told anyone about his crime. She now also claims to remember that her father sexually abused her numerous times. She says that she learned to protect herself by "forgetting" what had happened. Maybe. Or maybe the idea of being abused and forgetting it were suggested to her by her therapist during a hypnosis session. "In August 1989, Eileen confided in her brother that she was in therapy and had been hypnotized. The next day, she told her brother that while she was under hypnosis she had visualized her father killing Susan Nason. In September 1989, Eileen told her mother about the memory, confiding that it had come back to her during a hypnotherapy session." She later recanted the hypnosis story. [[Loftus](#)]

Defense lawyers argued that the daughter could have unconsciously fabricated the whole story out of anger and fear of her father. They even suggested she may have made up everything for the \$500,000 book and movie deal she's signed. Maybe. In any case, Franklin's conviction was overturned in 1995 on the grounds that the jury had been prevented hearing testimony that the source of nearly every detail which Eileen remembered about the murder could have been newspaper accounts readily accessible to her. Elizabeth Loftus concluded

I have little doubt that Eileen Franklin believes with every cell of her being that her father murdered Susan Nason. But I believe there is a very real possibility that the whole concoction was spun not from solid facts but from the vaporous breezes of wishes, dreams, fears, desires. Eileen's mind, operating independently of reality, went about its business of collecting ambiguities and inconsistencies and wrapping them up into a sensible package, revealing to her in one blinding moment of insight a coherent picture of the past that was nevertheless completely and utterly false.

In short, it is likely that Eileen's memory is a confabulation based upon newspaper accounts, possible discussions of those accounts which she overheard or participated in, and her own fears and desires perhaps given a big boost by therapy which included hypnosis, and finally reinforced by a distinguished expert.

March 2, 1995. The Associated Press reports that a California state appellate court has ruled that consumers may no longer sue for property damages stemming from invisible power emissions. Jean and Marin Covalt had argued that the perception that electromagnetic fields are dangerous had driven down the value of their San Clemente property. They lost their home due to foreclosure and wanted San Diego Gas and Electric Co. to reimburse them for their loss. Also, although the Covalts didn't claim they had been made sick by EMFs, they did claim that their fear of contracting cancer in the future was an "injury" to them and they wanted to be compensated for their "injury."

The 4th District Court of Appeals in Santa Ana is to be commended for its ruling.

March 18, 1993. *The Wall Street Journal* ("Chiropractors Seeking to Expand Practices Take Aim at Children," by Timothy K. Smith p. A4) reports on a chiropractor who had treated a five-year-old boy and his four-year-old sister for mastoiditis. The boy's infection had invaded his skull; the girl's was so severe that part of her face was paralyzed and pus was pressing against her brain. The children's parents were using a chiropractor as their primary care doctor. The doctor of chiropractic correctly diagnosed the ear infections and tried to cure the children by manipulating the bones of their spines. Because they were not treated with antibiotics, the girl is now deaf in one ear and the boy is still under observation for neurological damage. The author reports on the systematic efforts of chiropractors to recruit children as patients. One company, Peter Pan Potential, holds seminars for chiropractors to teach them how to get more children as patients. Their advertisements for chiropractors in trade magazines tell the chiropractors to "Do your part to change the perception of chiropractic with patients who aren't negative or skeptical--they're children!"

The American Chiropractic Association (ACA) responded to this article with a full page ad in *The Wall Street Journal* (March 22, 1993, p. A11). The ACA ad stated that "It deeply regrets and condemns the unfortunate, although isolated, conduct reported by *The Wall Street Journal*." To its credit, the ACA didn't deny that some chiropractors are dangerous quacks. The ad further stated that "Chiropractic manipulation is not a substitute for routine vaccinations, and our Association considers any contrary suggestion to be unethical, unprofessional and wrong." The ad made no comment on the practice of treating day old babies for spinal misalignment.

The Smith article notes that chiropractic colleges are accredited and their services are covered by Medicare, Medicaid and some private insurance plans. This gives chiropractic an "authoritative resonance" which other non-traditional treatments do not have. The same article in the *Wall Street Journal* which describes these children gives an account of children with cancer who have been treated by chiropractors who made inappropriate diagnoses which "resulted in delay of correct medical diagnoses and treatment."

Dr. John Bolton, a San Francisco pediatrician, put it best when he said, "It's criminal to tell kids not to get immunizations because somehow cracking their backs can prevent infectious disease. It's not reportable as child abuse, although it's certainly abusive."

Dr. Jennifer Peet thinks differently. She and her husband founded The Baby Adjusters in 1992, a chiropractic clinic mainly for children. She says her clinic adjusts the spines of 150-200 people a day, most of them children and some of them infants. "We check them when they're 24 hours old. Very gently, it's almost just a tapping, we push the bone back into alignment." She claims she's cured infections, asthma and allergies. She's written a book, has a newsletter, pamphlets and posters, gives lectures and sells audio taps. Next she hopes to start a magazine. Soon, no doubt she'll be on the talk shows. She'll be recognized as an "expert" and quoted by others like her who will also write books and quote each other and reinforce their non-sense until it all has the ring of verisimilitude about it.

further reading

- ["Special Report: U.S. study finds no proof of electromagnetic peril"](#) by John D. Cox
- ["Insuring Alternatives"](#) The July 3, 1996 transcript of a PBS story on Washington State's decision to force insurers to cover alternative medical practitioners.
- [Quackwatch on "Dietary Supplements," Herbs, and Hormones](#)
- [Experts urge cautious approach with chiropractors treating colic](#) (April 11, 2000)





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chupacabra

The *chupacabra* ("goat sucker") is an animal said to be unknown to science and systemically killing animals in places like Puerto Rico and Mexico. The creature's name originated with the discovery of some dead goats in Puerto Rico with puncture wounds in their necks and their blood allegedly drained. According to *UFO Magazine* (March/April 1996) there have been more than 2,000 reported cases of animal mutilations in Puerto Rico in the last two years attributed to the chupacabra.



Puerto Rican authorities maintain that the deaths are due to attacks from groups of stray dogs or other exotic animals, such as the panther, illegally introduced in the island's territory. The director of Puerto Rico's Department of Agriculture Veterinary Services Division, Hector Garcia, has stated that there is nothing unusual or extraordinary about the cases they've observed. One veterinarian said "it could be a human being who belongs to a religious sect, even another animal. It could also be someone who wants to make fun out of the Puerto Rican people."

Like other creatures in the cryptozoologist's barnyard, the chupacabra has been variously described. Some have seen a small half-alien, half-dinosaur tailless vampire with quills running down its back; others have sited a panther like creature with a long snake-like tongue; still others have seen a hopping animal that leaves a trail of sulphuric stench. Some think it may be a type of dinosaur heretofore unknown. Some are convinced that the wounds on animals whose deaths have been attributed to the chupacabra indicate an alien presence. However, they do not attribute the "mutilations" to the aliens themselves, but to one of their pets or experiments gone awry. Such creatures are known as *Anomalous Biological Entities* [ABEs] in UFO circles.

Those who think the chupacabra is an ABE also believe that there is a massive government and mass media conspiracy to keep the truth hidden from the people, probably to prevent panic. This view is maintained despite the fact that the President of the Puerto Rico House of Representatives Agricultural Commission, Mr. Juan E.[Kike] Lopez, has introduced a resolution asking for an official investigation to clarify the situation. And *Inside Edition* sent a crew to Puerto Rico to investigate the ABE story. They allegedly ridiculed the Mayor of Canavanas, a witness to the chupacabra, and basically made fun of the whole idea. In any case, there have been [numerous published stories and reports regarding the chupacabra](#).

[Jorge Martin](#), a Puerto Rican journalist, reports that it has been brought to his

attention that the U.S. and Puerto Rican governments have captured two of the creatures. Perhaps there will soon be a film on the ABE autopsy to rival the [discredited alien autopsy film](#). Martin cautions us not to exclude other reasonable possibilities.

The ABEs can also be the product of highly sophisticated genetic manipulations by human agencies. A Chinese-Russian scientist by the name of Dr. Tsian Kanchen, has produced genetic manipulations which have created new species of electronically-crossed plant and animal organisms. Kanchen developed an electronic system whereby he can pick up the bioenergetic field of the DNA of living organisms and transfer it electronically to other living organisms. By these means he has created incredible new breeds of ducks/chickens, with physical characteristics of both species; goats/rabbits, and new breeds of plants such as corn/wheat, peanut/sunflower seeds and cucumber/watermelons. These are produced by linking the genetic data of different living organisms contained in their bioenergetic fields by means of ultra-high frequencies biological linking. If the Russians have created this technology, then without doubt the US and other powers have too. Therefore, it is quite possible that the "Chupacabras" or ABEs could have been developed by humans. [Martin]

Martin goes on to report that a chupacabra has been killed and blood tests have been done on the creature.

The genetic analysis so far has revealed that the blood is in no way compatible with human blood nor with any animal species known to science. The traces ratio of magnesium, phosphorous, calcium and potassium are incompatible with those of normal human blood, they are much too high. The albumen/globulin [RG ratio] was also incompatible. The ratios found do not allow the results of the analysis to be compatible with those of any known animal species.

At present, we can't place the sample with any earthly organism. Therefore it could well be the product of a highly sophisticated genetic manipulation, an organism alien to our own environment or perhaps extraterrestrial. [Martin]

On the other hand, the sightings may not be all that accurate, the "mutilations" not all that strange, and the evidence for these bodies, autopsies and blood tests remains little more than speculation.

See related entry on [bunyips](#), [cattle mutilations](#) and [cryptozoology](#).

further reading

- [El Chupacabra](#)
- [Chupalooza!](#)
- ["Mystery Creature Causes Havoc in Puerto Rico"](#) by Scott Corrales
- [Goatsucker Sighted, Details to Follow Strange beast plunders Puerto Rico, Florida, Mexico Livestock drained of blood, entrails Citizens ignore authorities' appeal for calm](#) by Bucky McMahon
- [El Chupacabras - Terror of Puerto Rico Myth or Beginning of a New Reality?](#) by Bob Buck
- [Can the mysterious chupacabra of Puerto Rico suck the blood of farm animals?](#) The Straight Dope

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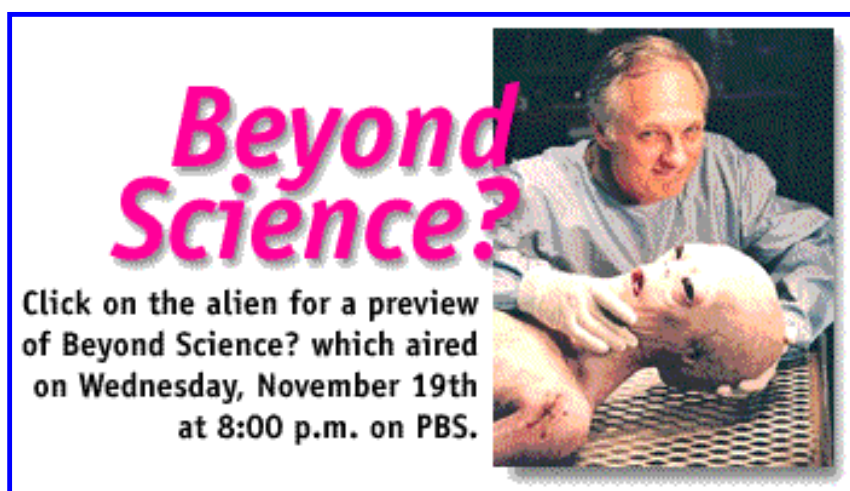
In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

3

Winking Alien promotional graphic for program on pseudoscience



November 19, 1997. *Scientific American Frontiers* took on pseudoscience in "Beyond Science?," one of a series of science specials currently being shown on public television stations. The host, Alan Alda, the mischievous Hawkeye of *M*A*S*H* fame, joined in a fake alien autopsy, a [dowsing](#) experiment, a fake [palm reading](#), a [graphology](#) test, a simple test of a claim made by those who practice [therapeutic touch](#), and a visit to Hal Puthoff's latest project on ["zero-point energy."](#) Several skeptics, including Ray Hyman, Barry Beyerstein, Stephen Weinberg and Philip Klass, offered their views, but the main focus was not on debunking specific pseudosciences. The purpose of the program was to explore the differences between scientific and pseudoscientific methods, between "rational" and "irrational" thinking.

The main lesson, it seems to me, was that the scientific method is characterized by skepticism and mistrust of human nature. Of course there is no such thing as *A Scientific Method of Discovery*, but there is a method to scientific thinking and it includes being constantly vigilant against self-deception and being careful not to rely upon insight or intuition in place of rigorous and precise empirical testing of theoretical and causal claims.

While each of the examples of pseudoscience treated in this program was aptly chosen, I think the segment on dowsing exemplifies one of the more significant characteristics of the difference between science and pseudoscience. Three dowsers were featured and each was extremely confident of his ability to find water with a dowsing rod. Each claimed to have had many successful dowsing experiences over

the years, which was proof to them that dowsing "works."

Alda tried the dowsing rods and sure enough they crossed over where it had been suggested to him that there would be water. It is thought that the authentic dowser is unaware of subtle movements in his hands which cause the rod to bend. The movements occur when the dowser thinks he is near his target. There may be a variety of sensual clues which suggest the target. The dowser, however, does not reflect on those clues and is essentially unaware of their influence. In any case, none of the dowsers considered it important to doubt their dowsing powers or to wonder if they were self-deceived. They had never considered a scientific test of their powers; for, each of them thought that the fact that they had been successful over the years at dowsing was proof enough. Furthermore, when each dowser failed--the one in a controlled experiment and the others on the job of a well site that went over 600 feet for naught--they did not consider for a moment that the failure could be indicative that their beliefs in dowsing were in error. One of the dowsers who had led a drilling company to a dry site blamed the failure to find water on himself, not dowsing. He didn't do it right, didn't follow the right method or correctly interpret the signs. Or, they had drilled just a little off, barely missing the fracture he knew had to be there at 161 feet. The man doing the drilling commented that he didn't think there was anything to dowsing and dowsers. He'd seen dowsers proved wrong too many times to believe in dowsing. The driller also claimed, however, that 99% of the time you'll get water no matter where you drill. The driller was skeptical because the evidence seemed to falsify the dowsers' claims. That skeptical attitude, plus the fact that perhaps the odds are very great of hitting water in most places one might consider drilling, plus the concern over self-deception, would have led a scientist to devise a test of dowsing's claims, a test which would not rely on subjective impressions or selective memory and which would eliminate as far as possible the likelihood of chance being a factor in the outcome.

One of the dowsers claimed he could find metal objects, as well as water. He agreed to a test which involved randomly selecting numbers which corresponded to buckets which had been placed upside down in a field. The numbers determined which buckets a metal object would be placed under. The one doing the placing of the objects was not the same person who went around with the dowser as he tried to find the objects. This [double-blind method](#) is typical of science, to avoid the possibility that the investigator's knowledge might influence the outcome of the test. The exact odds of finding a metal object by chance could be calculated. (For example, if there are 100 buckets and 10 of them have a metal object, then getting 10% correct would be predicted by chance. That is, over a large number of attempts, getting about 10% correct would be expected of anyone, with or without a dowsing rod. On the other hand, if someone consistently got 80% or 90% correct, and we were sure he or she was not cheating, that would confirm the dowser's powers. *After* confirming such powers, scientists would proceed to try to come up with a theoretical explanation. Pseudoscientists are wont to offer explanations for phenomena which have not even been established to exist.) The dowser walked up and down the lines of buckets with his rod but said he couldn't get any strong readings. When he selected a bucket he qualified his selection with something to the effect that he didn't think he'd be right. He was right: he was never right! He didn't find a single metal object despite several attempts. As Alda pointed out, this didn't disprove dowsing. What it did prove, though, was that nothing could shake the faith of the dowser. He couldn't explain why he couldn't perform, but that fact didn't dampen his belief in dowsing or in his

ability to dowse. The impression was that no amount of empirical evidence would ever convince him that he was wrong. Such an attitude is typical of pseudoscience.

Each of the dowzers claimed that the mind plays a role in influencing the dowsing rods. But rather than accept Ray Hyman's explanation that the rods move to fit the dowser's expectations, one of the dowzers proffered that [ESP](#) is what influences the mind to influence the hands which move the rods. Alda commented that that claim is truly beyond science, for there is no way to test the claim that it is ESP which is influencing the dowser. Still, one could do a double-blind test to discover whether the dowser using dowsing rods could find water or metal at a greater than chance rate, but none of the dowzers felt such a test was necessary.

The attitude of the pseudoscientist was also demonstrated in the segment on therapeutic touch (TT). Those who practice TT believe they are able to move "energy," some sort of psychic force field or [chi](#) which they believe permeates the body and surrounding [aura](#). They move their hands a few inches above the body, appearing to be pushing or moving some invisible body surrounding the physical body. TTers claim they can feel the energy flowing in their patients. They claim we all have this energy and that they can feel it. Like the dowzers, they know TT works from experience. They've seen it work again and again. And it never occurs to them that they could be self-deceived or that they should devise a scientific test to rule out self-deception as being the main force at work here.

A young girl devised a simple test for the TTers. Our young scientist had a randomly generated list of trials to perform which consisted of the words 'right' or 'left.' These referred to the right hand or the left hand of the TTer who was on the other side of a thin wall with holes near the bottom for her hands to go through. The young scientist would tell her subject when she (the scientist) had placed one of her hands under the TTer's right or left hand. The scientist would record what hand she had placed her hand under and what hand the subject had claimed she felt "energy" coming from. This is a very simple test to determine whether the feeling of energy the TTer has is objective or subjective, based on really feeling energy or on *thinking* she was feeling energy. Of course, this test does not test the main claims of therapeutic touch. Those claims are untestable; for, the energy allegedly measured is not physical energy and can only be *felt* by people, not measured by any machine. Still one could devise a controlled study where patients being treated in the same way for the same illness are divided into two groups, one which gets TT and one which doesn't. Several physicians could evaluate the patients before and after their treatments. These physicians would not be the ones providing the treatment, to avoid their knowledge of who was getting TT from influencing their patient evaluations. A third group might also be studied, one which was given "fake" TT, i.e., TT by a skeptic who thinks this stuff is metaphysical non-sense. The point of the Scientific American program was not to do such a test, but to demonstrate what methods scientists would use to investigate and inquire, as opposed to the lack of interest in such methods by pseudoscientists, who think they already know the truth from personal experience and insight. [Double-blind tests](#) are part of the scientific method of inquiry. Such tests are considered unnecessary by pseudoscientists and thus they risk being self-deceived and in error in a profound and fundamental way.

The palm reading segment was interesting because it involved getting a subject who

did not believe in palm reading to have readings done by skeptic Ray Hyman. Dr Hyman used to do this stuff for a living when he was a young college student. He got so good at [cold reading](#) that he came to believe that he *was* psychic. The skeptical subject was so impressed by Hyman's abilities that she started talking like a true believer before the interview was over. She obviously tuned in to certain claims Hyman made about her. She focused on what she liked hearing. She didn't even seem to notice when Hyman was fishing (using general knowledge about people of her gender, age, etc. and specific knowledge based on what she was wearing, how she presented herself and how she responded to his questions, etc.). Nor did she notice that most of the claims he made about her were based on information she had provided herself by her words and gestures in response to his questions. Like the dowser, she used [selective perception](#) and focused on the "hits" and ignored or downplayed the "misses." A scientific method of inquiry requires that the "misses" not be dismissed, but recorded and evaluated. This segment of the program seems to have been designed to remind us of the danger of letting down our guard against self-deception and wishful thinking. It is a danger which scientists must constantly battle. Even the wisest amongst us must be careful not to deceive ourselves into thinking that we are too clever to be tricked or too smart to be led by suggestion to believe things which are questionable. That is one reason why scientists devise rigorous tests of claims: to prevent personal desire or beliefs from affecting outcomes.

The most amusing sequence of the program was the fake alien autopsy. There was a little evaluation of the Alien Autopsy film promoted on the Fox Alien Network last summer, demonstrating the poor quality of the fraud, especially the poor quality of the dummy alien itself. The fake alien used by Scientific American was designed in Hollywood and was very realistic. It seemed to have a skeletal structure and be a real body, while the Fox Fake was more like a rag doll stuffed with sausages. This segment of the program discussed the [Roswell](#) phenomenon: that thousands of people reject the simple story of a weather balloon used in an Air Force experiment which crashed in the desert. The Roswell crowd are convinced that there is a government conspiracy to hide the truth that aliens crash landed on earth in 1947. It is encouraging to see so many skeptical people, but the skepticism of the Roswell crowd is skepticism gone awry. Testimony from reliable sources is rejected in favor of testimony from unreliable sources. Facts are ignored if they support the simple explanation. General distrust in the government is taken as sufficient reason to believe in the alien story and reject any explanation, however plausible, which supports the weather balloon story. The mass media, especially the Fox Alien Network, has done its share of encouraging and promoting the Roswell phenomenon. Roswell is an example of what happens if the imagination is allowed to run wild without a check in reality. (As one young boy on a holiday with his parents in Roswell put it: "if nothing happened, then they probably wouldn't have all this stuff.") Scientific skepticism is not the blank check to doubt everything which does not fit with one's beliefs, as the Roswell skeptics seem to think. Scientific skepticism requires that the physical evidence be taken for what it is, not rejected on general grounds of distrust of the government. Scientific skepticism requires that one not speculate about evidence which is not available on the general suspicion that such evidence is being concealed. Scientific skepticism requires that one consider *all* the testimony from everyone who was present or involved in the original project, and that that testimony be evaluated against the actual evidence which exists, not against speculative evidence which some claim existed.

Praising [Occam's razor](#), Alda presented the explanation which Phillip Klass and others have made regarding project Mogul. He interviewed Charlie Moore who was part of the original Air Force project and laid out the non-alien explanation. For the Roswell crowd, however, this issue of aliens crash landing on earth is truly beyond science. No amount of scientific evidence or reasoning is likely to convince the true believer that what happened at Roswell was nothing extraterrestrial. Belief in such matters is akin to religious faith in God. I am struck by the similarity in pose between William F. Buckley's response in a recent interview promoting his new book on God and that of the Roswell crowd. "What's the evidence for the resurrection of Christ?" asked the interviewer. Buckley gave two pieces of evidence. One, there were eyewitnesses who testified to it. Two, the Jews and Romans did not deny it. The latter is the *argumentum ad ignorantiam*: it is so because you don't prove or argue that it isn't so. To the former, the skeptic responds with a question: why trust such testimony? With David Hume, we ask "what is more likely? that these witnesses got it right or that they are deluded, mistaken or lying?" And we wonder why some people use the methods of science when it suits their purposes but reject those methods in favor of faith, also when it suits their purposes. We ascribe such a pose to *the will to believe*, but we are nevertheless left nonplused at such loyalty.

Barry Beyerstein, who has written extensively on the pseudoscience known as graphology, joined Alda for a graphological personality evaluation by [Datagraph](#), a major player in this business. [Datagraph seems to be a *former* major player; they seem to be defunct as of Oct. 2000.] Their spokesman claimed that their analysis of 420 handwriting features is accurate to 90% and is used to create a unique "mindprint" of each individual evaluated. (Alda noted that psychologists consider psychological personality profile tests to be "moderately reliable.") They submitted eight handwriting samples for analysis and then reviewed the profiles, trying to figure out which one was their own. They couldn't. Alda did an assessment and of the 14 personality traits Datagraph uses, he thought they were right on 4 of his, wrong on 8, and 2 were maybes. He noted to Beyerstein that it would be easy to be influenced by what you would want to be true of you, even if it weren't, and how you could be influenced by the printed judgment to engage in a bit of selective memory to validate the claim. Furthermore, the *content* of the writing could influence the evaluator's judgment. A scientific analysis would not rely on such sloppy techniques and subjective measures to do the evaluation. When an evaluator, John Nezelek, was asked to comment on the reliability of Datagraph by comparing its profiles of some subjects who also took a standard psychological personality profile test, he refused to commit, saying that there were not a significant number of cases studied to warrant drawing any conclusions. Such tentativeness is typical of good science, and generally lacking in pseudoscience. Nezelek is currently doing [further study](#) on the subject.

The oddest segment on the program was a visit to a place in Texas called the Institute for Advanced Studies, run by Scott Little and Hal Puthoff (of [remote viewing](#) fame). Their main interest seems to be "zero-point energy" in particular, and finding a source of unlimited energy in general. Puthoff claimed that there is enough zero-point energy in a coffee cup to evaporate the oceans. Physicist Stephen Weinberg claimed that there might be the energy equivalent of a gallon of gasoline in the entire earth. Since this debate seems to be a scientific one, rather than beyond science, one might wonder why it was featured in the program. I'm not sure myself except that Little offered some comments on the importance of scientists to be wary of fooling

themselves, especially when they are looking for the "most fabulous object in the universe" or some such thing. People can easily fool one another, as well as themselves, intentionally and unintentionally, and significant steps must be taken to prevent self-deception. In one experiment which hadn't even gotten off the ground yet, the instruments started to give readings that energy was being produced from some mysterious source. Little commented that you have to assume it's an error and "tear it down" before breaking out the champagne.

In the meantime, I think we can break out the champagne and congratulate Scientific American for a program which represents one small step for public television, and one giant leap for rationality and scientific skepticism.

further reading

- [Alien Autopsy - Faked or Fiction?](#)

November 12, 1997. ["Athletes swallow expensive doses of hope"](#) was the title of an article by Chris Hays in the *Sacramento Bee*. The article did an excellent job of explaining why it is so difficult to get unbiased information about body building supplements: the main source of information comes from body building magazines which are all owned by the supplement manufacturers themselves. Even so, Hays claims that "everyone agrees" that *creatine* "works." A typical ad on the internet reads

Creatine monohydrate provides safe nutritional support for athletes seeking peak performance in short-duration, high intensity workouts. By supporting the body's natural ability to regenerate the primary energy immediately available to working muscle, creatine monohydrate has the potential to increase optimal work output in activities such as weight-lifting and sprinting.

Creatine is a nitrogenous organic acid, $C_4H_9N_3O_2$, found in the muscle tissue and which supplies energy for muscle contraction. Joseph Clark has written an scientific paper on [the use of creatine in sports](#). It is very technical sounding but he notes that "30% of the population have a diet and metabolism such that they do not benefit from creatine supplementation." The only negative side effects mentioned were water retention and heat intolerance. The positive benefits include such things as an *increase in muscle peak torque production while decreasing plasma ammonia accumulation*. The author does note that a healthy body self-regulates the production of chemicals (creatine is synthesized in the liver and kidneys, using three amino acids derived from food intake) and will shut down production when more of the chemical would be redundant. Furthermore, beyond a certain amount of some chemicals the body simply will not use them; hence, further supplementation is pointless or harmful (if the body can't eliminate the excess, for example). (This is why certain supplements are probably pointless, such as [DHEA](#). Taking a supplement may shut down its natural production by the adrenal glands.)

October 26, 1997. An article in the *New York Times* by Jane E. Brody reported the results of a 13-year study involving over 10,000 Americans which "found no evidence of increased longevity among vitamin and mineral supplement users in the

United States." This is especially bad news, since most of the people who take vitamins are non-smokers who don't drink heavily and who eat more fruits and vegetable than the rest of us. (The study also found that supplements failed to help the longevity of smokers, heavy drinkers, and those with chronic diseases.) The results of the study have been out for four years. Nevertheless, it is estimated that some \$6.5 billion a year is being spent by Americans on vitamin and mineral pills. Why? I suppose because there is a chance that the pills might help fight cancer, give one more energy, help one live longer, etc. It is true that the information regarding nutrition, vitamins and minerals is bewildering, confusing and contradictory; that uncertainty gives some wishful thinkers hope that the stuff will do them good. Maybe. And maybe that is why vitamins and minerals are so popular among [MLM programs](#). But why ignore the possibility that these pills might be doing some harm? Vitamin E can interfere with the action of vitamin K (which promotes blood clotting). Too much calcium can limit the absorption of iron and too much zinc can reduce the level of copper in the body (decreasing "good" cholesterol). Folic acid can react adversely with anticonvulsants and each year the greatest number of poisoning deaths among children is from iron supplements meant for adults.

It might seem like \$6.5 billion is a lot of money, but consider that Americans spend about \$2.5 billion on Halloween candy and costumes.

August 21, 1997. In a repressed-memory case, the 2nd District Court of Appeals overturned a ruling by Los Angeles Superior Court Judge Wendell Mortimer, saying testimony is inadmissible if procured by administering the drug sodium amytal, a so-called "truth-serum." Holly Ramona was given the drug by Marche Isabella, who had assured Ms. Ramona that she was incapable of lying while under the influence of sodium amytal. Isabella also told Ramona, who sought treatment for bulimia and depression, that 80% of those with eating disorders had been sexually abused. The evidence for this claim was not presented. Soon after being given this dubious information and the drug, Ramona began having "flashbacks" of childhood abuse by her father. Assured by another therapist, Richard Rose, that she could not lie while under sodium amytal, Ramona became convinced the "flashbacks" were genuine memories. She accused her father of molesting her. He denied it and she sued him for damages. Her father, Gary Ramona, sued the therapists for planting false memories in his daughter. He was awarded \$500,000 by a Napa County, California, jury. Even so, his wife divorced him and he was fired from his \$400,000-a-year job as a wine marketing executive as a result of the charges made by his daughter.

The unreliability of testimony influenced by sodium amytal has long been recognized in the scientific community. Such testimony has been barred from use in California courts since 1959. According to scientific experts, the drug makes subjects suggestible and prone to talking, but is not a "truth-serum." Subjects can lie, confabulate, fantasize, etc., as well as tell the truth while under the influence of sodium amytal.

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[More Mass Media Funk](#)



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The comments here are mostly letters from readers who think they have had psychic or paranormal experiences. I do not believe that everything can be explained, nor do I believe that whatever alternative explanations I give for these experiences must be true. Nor do I feel that it is the skeptic's duty to "prove" that these experiences either never happened as described or did happen but there is a naturalistic explanation for them. I offer these only as an example of how easy it is for people to have an unusual experience, seek out a paranormal explanation for it and delude themselves into thinking they have experienced something really

reader comments:

17 May 2001

Perhaps you can help me. I have always considered myself a skeptical, intelligent person. I have grounded my analysis of experience in solid science as much as possible and have attempted to cultivate critical thinking. James Randi is somewhat of a role model for me. Given this, you can understand why I find the following experiences particularly disturbing.

Sometime ago I was ruminating idly, when a thought of my grandfather crossed my mind. It was an inconsequential thought, perhaps of him in his garden, but it had the tone -- for want of a better way to put it -- of someone who was deceased. Nothing blatant, mind you, but inescapable. Despite a lifelong pooh-poohing the validity of such phenomena, I could not help but wonder if my grandfather had indeed died. At that time, I had very little interaction with my mother, and had not heard from her in eight or nine months. There had been no information at all about any deterioration in my grandfather's health. He was almost never mentioned in our sparse communication. When I had heard nothing from her in a week, I put the experience out of mind. Then, about three weeks later, I did receive a letter. I wondered uneasily to the woman I was with if there was some news of my grandfather's passing. When the first page held only the usual chatter, I dismissed the idea. Then, on the second page, was inconceivable information that my grandfather had indeed died in hospital, about a week before receiving my impression!

Then, just last summer, I was in my bedroom when the thought, very strong, came, "Call Dad, he is not going to live forever!" In those exact words. I ignored it, saying to myself that we Edwards' live well into our nineties, which is quite true. From the direction of my letter, you may guess what happened. The following day, in the late afternoon or early evening, my brother called to say that our dad had died while resting and reading a newspaper, of an apparent heart attack. It turns out he suffered from arrhythmia, of which I had no knowledge -- for two reasons: one, our relationship was just coming to the point where communication, sorely disrupted in my teenage years, was being re-established; two, he was an extremely taciturn man, particularly when it came to his health.

Mr. Carroll, I have not spoken of these instances to anyone out of embarrassment, as everyone knows my position. I am hoping that you may be able to give me some way to rationally account for my experiences. It seems that the level of coincidence for two such events bearing fruit must be more than astronomical. And, they were subjectively dissimilar.

special which sets them apart from the rest of us and which makes life oh so interesting and mysterious.

High Regards, Bruce

reply: Dear Bruce,

Here's another coincidence for you: you caught me on a good day...I'm up early and because it is final exam week I don't have to go to work until 10 am today. In short, I have time to reply.

The uncanny are uncanny! The first thought that came to mind regarding your story is how little most of us understand chance, probability, odds, etc. This leads us to give significance to the insignificant....not that these events are insignificant...the deaths of a father and grandfather (I am both!) are significant....it is the sense of "astronomical odds" that I am referring to: these events seem significant in the sense that they seem to defy the [laws of chance](#). But they don't.

You can see, however, why so many people believe in the psychic realm. Humans don't have an intuitive sense for what is statistically significant. Hence, many coincidences seem to us to be connected in some mysterious way. I've written about this on [several occasions](#).

Also at work in giving these experiences their sense of being special is [selective thinking](#): we remember such events and don't remember the times we feared for dad or mom or uncle, etc. and nothing happened. When this happens twice in a relatively short period of time, the odds seem even more astronomical, like somebody winning the lottery twice (which also seems more unlikely than it really is, by the way).

I don't suppose I need mention that thoughts of the death of loved ones is quite common, especially elderly loved ones.

26 Jan 2001

Dear Bob, I was wondering if you could put my question to the skeptics below on some experiences with psychics that my dad told me about, in your reader's comments section of psychic experiences, and then respond to it there? I think I have some pretty irrefutable cases here. Your readers who are paranormal sympathizers would love this one! Here it is. You can change the "Dear Skeptics" part to "Dear Bob."

Winston

Skeptics, 2 mysteries from my dad for you to explain

Dear Skeptics,

I've got two new psychic mysteries from reliable sources for you to ponder! Recently I talked to my dad and explained to him the whole skeptic vs. paranormal/psychic debate we've been having, and he related to me some amazing firsthand stories (meaning that he was there at the time!) involving psychics that are so inexplicable but true that I just had to share them with you too. One of these stories was from a long time ago, the other was more recent. Don't worry, these are short and simple.

The first one involves a psychic that he, my mom, and her friend saw a long time ago back in Taiwan (I think it was during the early 70's, before I was born). There was this blind psychic who gave readings based on voices he heard. And my mom went to see him at the spur of the moment. One of the first things that he told her was that when she was little, her mom tried to give her away for adoption to another family, but she later ran away from that family back to her own mom, which was TRUE! My mom was so amazed at the time, that it got her attention. He also told her other things that were true too. Now guys, something like being given away for adoption and then running back home are NOT things that would fit most people, only a very few! My dad and my mom's friend was there too. All three of them can confirm this story! In fact, my mom's friend was so amazed that she tried to push her aside to get a reading herself! Skeptics, how do you explain something like this? But before you do, please keep these things in mind:

- 1. My dad does NOT make up things. He is one of the most down to earth people I know, and he has almost no imagination either! It's unlikely that he is remembering this wrong, especially since the two people with him at the time can confirm this.*
- 2. This psychic reading was NOT prearranged. The blind psychic didn't know my mom and didn't know that she was coming. It was a spur of the moment thing. So no record checking was possible.*
- 3. This took place in Taiwan during the early 70's, which was a very poor country at the time, and the record keeping system there was terrible and sloppy, so it is unlikely for a person, especially a blind one, to look up records on someone's childhood. Plus, like I said in # 2, the reading was not prearranged, but spur of the moment. (Or are you going to say that he has millions of people's records in Taiwan memorized? lol [chat room talk for "lots of luck"?!])*
- 4. Also, remember that the notion of "being given away for adoption by your mother and then running back to her" is NOT something general that applies to most people, but SPECIFIC and only applies to a few.*

So how do you guys explain this? How is this possible? What if this happened to you and there was no logical explanation?

reply: I doubt if Winston will like my response, but here goes. One possibility, of course, is that the "psychic" really is psychic and somehow tapped into some mysterious realm like your mother's mind ([telepathy](#)) or the [Akashic](#) record. One wonders, though, if the psychic had this ability why would he only tell your mother what she already knew? In other words, if this man was truly psychic, he was not very useful. He might as well have told her that she was a woman and was married. However, there may be another explanation. Perhaps this psychic said the same thing to many of the women of your mother's age in those days. If so, I would guess that he said it because he knew the practice was not rare at the time your mother would have been a child. And it would not have been unusual for children to have run away from the home they were put into...or at least to have wanted to. Had she not run away, her *desire* to run would probably have been counted by all as a "psychic hit." One way to have tested this "psychic" would have been to have sent about ten different women of your mother's age to see him at intervals of two or three months and see if the adoption tale came up again.

Of course, there is another possibility. The psychic may have overheard your parents in conversation and picked something up. Or he may have actually gotten the information from your parents during the reading, but they simply don't recall that it was *they* who told the psychic about the adoption and running away. This happens often in "psychic" readings and people are often amazed when they see a video tape of the reading that it really was the subject who told the psychic the "amazing" items, rather than the other way around.

Ok here's the second story that happened more recently. My dad said that a few years ago, he and a co-worker, Eileen, went to a psychic fair once. When Eileen picked one of the psychics there for a reading, she sat down. Immediately the psychic said that she was in the process of moving. This was true because at the time, Eileen had ALREADY sold her house and was in the process of moving! She was very amazed, and my dad was too. They both arranged for a personal reading later on. Skeptics, what do you make of this? Again, keep the following in mind:

- 1. This was NOT prearranged. This was at a psychic fair open to the public, where anybody could have showed up, so there was no way the psychic could have checked her records beforehand.*
- 2. Also, again my dad is not someone who makes up things or has a wild imagination. Plus, the other coworker, Eileen, can confirm this story. Plus, it was more recent too.*
- 3. Also, keep in mind that most people are not in the process of moving at any given point in time, therefore this is not something that would have been true for most people.*

4. Finally, keep in mind that the "you are in the process of moving" thing was the **FIRST** thing that the psychic said **WITHOUT** any cold reading or fishing for clues!

I dare you to explain this one!

(:::::grinning::::: right now because I know that your backs are against the wall and every legal move you have on the "chessboard" is legally blocked. It looks like there is no escape this time for our skeptical heroes! :))

Winston

reply: This one is a little easier, Winston. "You are in the process of moving" is vague and ambiguous. The client interpreted it to mean moving from one house to another home. At any given time, the statement "you are in the process of moving" could be made to be a true statement by relating it some aspect of your life. Literally, hundreds of events could count as "hits" and it is not the psychic who creates the hit; it is the subject who does so by putting an interpretation on the psychic's statement that "fits."

Your stories remind me of one sent to me by another reader (one who is a bit more critical and skeptical than you are, Winston). Melody McGowan worked as a telephone psychic but got caught plying her trade while at her real job as a civilian career advisor at Scott Air Force Base in Illinois. She was asked to resign from her post. She is also accused of using a government credit card to charge some \$2,000 in calls she made last year to the psychic hot line she now works for. Her comment on her troubles was: "I had a premonition of something, but I didn't know what."

[more comments: on psychic experiences and my interpretations of them](#)



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retrocognition

Retrocognition is a type of [clairvoyance](#) involving knowledge of something *after* its occurrence through psychic means.

My sister related an apparent case of retrocognition to me. She was watching television when a report came on about a woman (Susan Smith of Union, South Carolina) who claimed that her two young children had been kidnapped by a black man who carjacked her in some small town in the south. She claimed the black man drove out near a lake and let her out of the car and drove off with the two children. My sister said she immediately sensed that the children were dead and that they were in the lake. About a week later, the world was told that the woman herself had driven her car to the lake and with the children alive and strapped into the back seat, she put the car in drive and watched as the car sunk into the lake with her sons, drowning them.

It is a sad commentary on our times, but false reports of crimes are not uncommon and mothers killing their children are not uncommon. They are probably more common than black carjackers kidnapping little boys. In any case, the suspicious feelings which my sister had concerning the mother/murderer were probably shared by many people who saw the broadcast. It is evident that the police in the small southern town were skeptical too, not because they are clairvoyant but because they know a little bit about human nature and human behavior. If one was suspicious of the mother's story, the fact that she said she was driven to a lake leaves little to the imagination to fill in the blanks.

I'll admit that I've had similar feelings myself. About a year ago an alleged rape victim was interviewed on television. I had a feeling she was lying while I watched the broadcast. It turned out that she had been lying. Other people I talked to had seen the news broadcast, too, and also weren't convinced that her story was true. Were we clairvoyant? I don't think so. We all make judgments about people's stories. Sometimes we're right and sometimes we're not. We tend to forget the times we're not. If we didn't, we wouldn't find the occasional correct "feeling" to be so surprising.

See **related entries** on [clairvoyance](#), [confirmation bias](#), [ESP](#), [parapsychology](#), [precognition](#), [psychokinesis](#), and [telepathy](#).

further reading

| [reader comments](#)

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 [retroactive](#)
[clairvoyance](#)

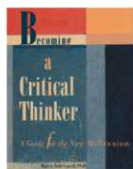
[retrospective falsification](#) 

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[Becoming
a Critical Thinker](#)

by Robert T. Carroll

the clustering illusion

The clustering illusion is the intuition that random events which occur in clusters are not really random events. The illusion is due to [selective thinking](#) based on a false assumption. For example, it strikes most people as unexpected if heads comes up four times in a row during a series of coin flips. However, in a series of 20 flips, there is a 50% chance of getting four heads in a row (Gilovich). It may seem unexpected, but the chances are better than even that a given neighborhood in California will have a statistically significant cluster of cancer cases (Gawande).

What would be rare, unexpected, and unlikely due to chance would be to flip a coin twenty times and have each result be the alternate of the previous flip. In any series of such random flips, it is more unlikely than likely that short runs of 2, 4, 6, 8, etc., will yield what we know logically is predicted by chance. In the long run, a coin flip will yield 50% heads and 50% tails (assuming a fair flip and a fair coin). But in any short run, a wide variety of probabilities are expected, including some runs which seem highly improbable.

Finding a statistically unusual number of cancers in a given neighborhood--such as six or seven times greater than the average--is not rare or unexpected. Much depends on where you draw the boundaries of the neighborhood. Clusters of cancers that are *seven thousand times* higher than expected, such as the incidence of mesothelioma in Karian, Turkey, are very rare *and* unexpected. The incidence of thyroid cancer in children near Chernobyl was *one hundred times* higher after the disaster (Gawande).

Sometimes a subject in an [ESP](#) experiment or a [dowser](#) might be correct at a higher than chance rate. However, such results do not indicate that an event is not a chance event. In fact, such results are predictable by the laws of chance. Rather than being signs of non-randomness, they are actually signs of randomness. ESP researchers are especially prone to take streaks of "hits" by their subjects as evidence that psychic power varies from time to time. Their use of [optional starting and stopping](#) is based on the presumption of psychic variation and an apparent ignorance of the probabilities of random events. Combining the clustering illusion with [confirmation bias](#) is a formula for [self-deception](#) and delusion.

A classic study was done on the clustering illusion regarding the belief in the "hot hand" in basketball (Gilovich, Vallone, and Tversky). It is commonly believed by basketball players, coaches and fans that players have "hot streaks" and "cold streaks." A detailed analysis was done of the Philadelphia 76ers shooters during the 1980-81 season. It failed to show that players hit or

miss shots in clusters at anything other than what would be expected by chance. They also analyzed free throws by the Boston Celtics over two seasons and found that when a player made his first shot, he made the second shot 75% of the time and when he missed the first shot he made the second shot 75% of the time. Basketball players do shoot in streaks, but within the bounds of chance. It is an illusion that players are 'hot' or 'cold'. When presented with this evidence, believers in the "hot hand" are likely to reject it because they "know better" from experience.

In epidemiology, the clustering illusion is known as the [Texas-sharpshooter fallacy](#). Kahneman and Tversky called it "belief in the Law of Small Numbers" because they identified the clustering illusion with the fallacy of assuming that the pattern of a large population will be replicated in all of its subsets. In logic, this fallacy is known as the *fallacy of division*, assuming that the parts must be exactly like the whole.

further reading

- [Number Watch](#) - **All about the scares, scams, junk, panics, and flummery cooked up by the media, politicians, bureaucrats, so-called scientists and others who try to confuse you with wrong numbers.**

Gawande, Atul. "The Cancer-Cluster Myth," *The New Yorker*, February 8, 1999, pp. 34-37.

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Tversky, A. and D. Kahneman (1971). "Belief in the law of small numbers," *Psychological Bulletin*, 76, 105-110.

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 [clairvoyance](#)

[codependency](#) 

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optional starting / optional stopping

Optional starting and stopping refers to a common practice among [psi](#) researchers. In many tests of psychic powers the subject is allowed to start or stop whenever he or she feels like it. For example, the subject may go through some warm-ups trying to psychically receive numbers or [Zener card](#) icons being psychically transmitted by another person. The responses of the warm-ups are recorded, however, and if they look good (i.e., seem to be better than would be expected by chance) then the responses are counted in the experimental data. If not, then the data is discarded. Likewise, if the psychic has had a good run at guessing numbers of card suits and starts to have a bad run, he can call it quits.

This phenomenon seems to be related to another common factor in psi testing: optional keeping and optional disregarding of data. You get to keep all data favorable to your hypothesis and you get to disregard all unfavorable data. Psi researchers consider this practice to be justified since psychic powers may come and go.

Any reasonable test of psychic powers should have a protocol which specifies exactly when the experiment will begin and when it will end. Imagine letting a card player have a few practice rounds and if he's winning he gets to declare that those weren't practice rounds, but if he's losing he gets to declare that those really were practice rounds.

Optional starting and stopping should not be confused with *displacement effects*, a practice of counting an event as a "psychic hit" not only if one guesses the target card, but also if one guesses either the one *before or after* the target card, thereby significantly increasing one's odds of a "correct" guess.

See related entry on [parapsychology](#).

further reading

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[Gordon, Henry. *Extrasensory Deception: Esp, Psychics, Shirley MacLaine, Ghosts, Ufos* \(Buffalo, NY: Prometheus Books, 1987\).](#)

[Hansel, C.E.M. *The Search for Psychic Power : ESP and Parapsychology revisited* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)

[Hyman, Ray. *The Elusive Quarry : a Scientific Appraisal of Psychical Research* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)

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Texas-sharpshooter fallacy

The Texas-sharpshooter fallacy is the name epidemiologists give to the [clustering illusion](#). Politicians, lawyers and some scientists tend to isolate clusters of diseases from their context, thereby giving the illusion of a causal connection between some environmental factor and the disease. What appears to be statistically significant (i.e., not due to chance) is actually expected by the laws of chance.

Of the thousands of studies of cancer-clusters investigated by scientists in the United States, "not one has convincingly identified an underlying environmental cause" (Gawande).

The term refers to the story of the Texas sharpshooter who shoots holes in the side of a barn and then draws a bull's-eye around the bullet holes. Individual cases of disease are noted and then the boundaries are drawn (Gawande).

further reading

Gawande, Atul. "The Cancer-Cluster Myth," *The New Yorker*, February 8, 1999, pp. 34-37.

Gilovich, T., R. Vallone, and A. Tversky. "The hot hand in basketball: On the misperception of random sequences," *Cognitive Psychology*, 17, 295-314.

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codependency

*You're codependent for sure if, when you die,
someone else's life flashes in front of your eyes.*

Codependency is a term used to describe a kind of addiction, a relationship addiction. A person is said to be suffering from codependency when they exhibit caring for a loved one who is suffering from a real addiction to drugs or alcohol. The behavior of the caring individual is said to hinder recovery of the real addict by enabling the addict to continue the addiction. Codependency makes it seem as if all caring for addicts is pathological.

....the codependency movement...does not recognize or confront the social and economic realities in people's lives. It does not distinguish the dependencies that are healthy and desirable (loving and needing others) from those that are economically imposed (such as not having the financial resources to leave a violent marriage). It speaks of self-esteem as if it were air in a balloon, something that can be inflated and deflated with sheer willpower, unrelated to anything that people do, to their experiences in the world, to the context of their lives. --Carol Tavris

This model of codependency has been made popular by the writings of several people, especially Melody Beattie (*Codependency No More*), Pia Mellody (*Facing Codependency*), Robin Norwood (*Women Who Love Too Much*) and Anne Wilson Schaeff (*Codependency, Misunderstood, Mistreated*). According to these people, the codependent suffers from low self-esteem due most likely to child abuse, and is caring mainly to keep the addict addicted so she (it is usually a woman) can feel worthwhile by caring for the sick one. The codependent, they believe, can be helped, as can other addicts, by the [12-step plan of Alcoholics Anonymous](#).

Some see codependency as pathological itself, indicative of a trend among certain therapists, especially those who call themselves "family counselors," to see child abuse as the root cause of most personal problems. The model these counselors follow seems to be something like the following: child abuse causes low self-esteem, which leads people to abuse drugs or alcohol and other people as well. If only one had a happy childhood, free from abusers, one would have a wonderful life as an adult. The person with problems--the drug addict, the relationship addict, the sex addict, the *name-your-craving* addict--is a victim. Addict/victims need help. Insurance should pay for this help. Counselors should never be without long lines of addict/victims covered by insurance policies for treatment for their "disease." Society should support

the work of these counselors because they have good intentions and, unlike the rest of us, are not in denial. They are especially not in denial about the likelihood that one model, the model of the diseased addict, could adequately fit all alcoholics, all substance abusers, and all other abusers of any craving.

See related entry on [substance abuse treatment](#).

further reading

[reader comments](#)

- ["The codependency idea: when caring becomes a disease,"](#) Robert Westermeyer, Ph.D.
- [How the Co-dependency Movement Is Ruining Marriages](#)
- [Deflating Self-Esteem's Role in Society's Ills](#) By ERICA GOODE (*NY Times*, Oct 1, 2002)

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[Kaminer, Wendy. *I'm Dysfunctional, You're Dysfunctional: The Recovery Movement and Other Self-Help Fashions* \(Reading, Mass.: Addison-Wesley, 1992\).](#)

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 [clustering](#)

[cold reading](#) 

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substance abuse treatment

"The now tenacious attachment of the disease model and 12-step philosophy to caring behavior, commonly known as codependency, represents to me the most confusing and iatrogenic ideas in the realm of clinical psychology." ----[Robert Westermeyer, Ph.D.](#)

Substance abuse treatment is a behavior modification therapy for those who use drugs or alcohol to the detriment of themselves and others.

Law enforcement officials, politicians, and religious leaders often cite drug and alcohol abuse as evils so great that they threaten the survival of our society. Countless individuals worry constantly about their own and others' drinking or drug behaviors. Waiting to help all those with substance abuse "problems" are thousands of professionals in the "helping" professions. But are they really helping substance abusers? Or is substance abuse treatment (SAT) a racket designed primarily to make money or to promote some other selfish goal, with little regard for the health or well-being of patients? Or is SAT a mixture of good and evil, much like the people it avers to help?

the road to Hell is paved with good intentions

Criticizing those who profess to help substance abusers is unlikely to be welcomed either by those who see substance abuse as a subversive activity or by those who believe their own lives or the lives of loved ones have been or are now being destroyed by drugs or alcohol. The psychologists, psychiatrists, interventionists and aides who work in treatment facilities are unlikely to welcome criticism. Likewise for the owners and managers of such places. Nevertheless, it is unconscionable to allow an industry to go unchecked simply because they claim to have good intentions.

[Charles Dederich](#) (1913-1997), who created [Synanon](#), had good intentions. He would help drug addicts. In a little over twenty years, from 1958 to 1980, Synanon grew to an authoritarian cult with perhaps between \$30 million and \$50 million in assets. Instead of saving families, Synanon destroyed them. Of the 6,000 to 10,000 residents of Synanon between 1958 and 1968, only 65 people were rehabilitated (Ofsche 1980, 110). His empire collapsed when he pleaded no contest to a charge of conspiracy to commit murder. How do the Dederichs of the world get away with it? In his case, he was doing society's dirty business of helping drug addicts. To attack a person or an organization which is helping people is to show bad form and will generally be unrewarded. Furthermore, we all want such endeavors to succeed and are more apt to seek out confirmation of their successes than to criticize their failures. Programs like Synanon are the darlings of the media--and politicians

in election years--until their warts become too obvious to ignore. Unfortunately, these natural tendencies gives the unscrupulous carte blanche to abuse the rest of us.

The goals of SAT may be noble, but that does not justify using any means necessary to achieve those goals. To allow treatment which denies a person his or her human as well as civil rights should not be tolerated. To treat people for questionable diseases should not be tolerated. To use therapeutic techniques with little or no substantive evidence for their effectiveness should not be tolerated. While there are many SAT programs that respect the basic humanity of their patients and do a good and decent job of helping substance abusers, there are also programs that are not being monitored carefully by anyone, thus inviting abuse.

professional interventionists

Interventions are commonly used on those thought to be drug or alcohol abusers by concerned relatives and friends. The element of surprise is often used in these interventions. Several people including, in some cases, a professional interventionist confront the subject, who is immediately on the defensive. Not that it much matters, for any defense is taken as "being in denial." The shock of the intervention, its humiliating aspects, the intimidation of numbers, all combine to prevent any sort of rational exploration of the situation. This is of little importance, since the intervention is to be an *emotional* experience, not an intellectual one. The subject must *feel* (a) how much he or she is loved and (b) how alcohol or drugs is ruining their lives. Presumably, at an *intellectual* level, the abuser already knows these things, but the *value* of this knowledge has no effect on their behavior.

The interventionist is a paid professional. He or she is paid not for caring for the person admitted but for getting the person admitted. The interventionist takes on the role of Grand Inquisitor and deliverer, rather than that of counselor. But what justifies such a position? Why are there interventionists at all? They're needed to assist families in convincing a loved one to seek treatment. They are there to offer professional support to those who want their loved one treated. But why do people need an outsider, a stranger, to help convince their loved one to seek treatment? Is it because the interventionist plays the role of the *independent* facilitator, a *disinterested* professional? If so, then the position is a fraud. For the interventionist is not independent or disinterested, but is (a) primed to believe the subject is an abuser and (b) paid for delivery of a live customer to the treatment facility.

Should the subject agree to enter a treatment facility, he is also entering a world of ideas, the main one being that drug or alcohol abuse is a *disease*. Many subjects will join a group such as Alcoholics Anonymous, where they will also enter a world of ideas known as the [12-step program](#). That program, however, sees alcohol abuse as a matter of a weak will. Some may even end

up in a facility which tries to treat the *disease* of alcoholism with the 12-step program of character building, even though these approaches seem contradictory. Diseases cannot be controlled by the will, despite what “alternative” healers like [Deepak Chopra](#) and others might claim. Diabetes is not a character flaw. You cannot *will* your cancer away.

Those familiar with AA will recognize that the “disease” model of substance abuse contradicts the AA model of the weak-willed sinner who needs a “Higher Power” (which can mean anything from the AA group itself to the God of the Bible) to conquer the mighty forces of satanic booze. These clashing metaphors of the victim and the sinner are contradictory: the one makes the victim passive and not responsible for being an abuser; the other puts the burden of responsibility on the alcoholic. But it is a meager responsibility, since all the sinner must do to be redeemed is admit he or she is a sinner and turn oneself over to a “Higher Power”. Yet, there are even some AA programs which give the nod to the “genetic disease” model of alcoholism. Contradictions apparently do not matter when your goal is noble, however.

The disease model of alcoholism

What are the signs of this disease? In addition to craving drink and an inability to stop drinking after one or two drinks, one symptom of this disease is *quantity* of alcohol consumed. An alcoholic may require rather large amounts of drink before he or she feels a buzz much less feels drunk. If you drink no more than the average American, then you *probably* do not have this disease. If you drink more than that, then you are probably an alcoholic. The [National Institute on Alcohol Abuse and Alcoholism](#) defines a moderate drinker as someone who drinks an average of 3 to 14 drinks a week. A heavy drinker has an average of more than two drinks a day. A drink is 12 ounces of beer, one glass of wine or one shot of liquor. (In case you are wondering, if you drink 3 or more drinks a week you are in the minority: only 27% have that many drinks.)

Another symptom of this disease is *when* you drink. If you drink when stressed or depressed, lonely or bored, to get motivated or amorous, to test yourself or to feel good, then you are *very likely* an alcoholic. A better sign, however, is suffering from withdrawal symptoms. If you get nauseous, the cold sweats or the shakes when you don't drink, you are without doubt an alcoholic.

One of the unique features of this disease is that the effects of the disease are usually first felt by people *other* than the one suffering from the disease. For most diseases, the sick person feels bad. If the sick person doesn't feel bad, nobody else feels bad. If alcoholism is a disease, it must be a *mental illness*. The mentally ill often deny they are ill and the first identification of a mental illness is often when others notice that the afflicted person is behaving in

unconventional, bizarre or self-destructive ways. Like other mental illnesses, there is no blood or urine test for alcoholism. There is no physical marker the healer can look for to identify the disease. All the signs are behavioral.

Unlike mental illness, however, alcohol abuse is self-inflicted and might better be called *brain abuse*.

One cynical view of the matter is that alcoholism as a disease is not a matter of discovery, but of definition. It is a disease because it has been declared to be so by the very ones who profess to have the cure for the disease. How fortunate for the world that those who define the disease also define the cure! Actually, they don't have a "cure." They have a remedy. The inventors of the disease also declare that no one can be cured of this disease. Once an alcoholic, always an alcoholic. You haven't had a drink in fifty years, you say. That is not evidence that you are no longer an alcoholic. A cure would mean an end to treatment. A remedy means a lifelong income for the SAT provider.

The treatment usually begins by being repeatedly told that the first step to recovery is the declaration: *I am an alcoholic*. For the sinner to be saved, the sinner must first admit he is a sinner. To refuse to do so is proof the sick one is "in denial" and without grace. The only way to prove you are not in denial is to admit you are an alcoholic. This is only phase one. The next phase is public confession: the subject must declare before others how they have degraded themselves and betrayed their humanity through substance abuse. The point, I suppose, is to get the substance abuser to believe he or she is hopelessly addicted or diabolically possessed (or both) and can be helped only by abandoning oneself to a "Higher Power."

Neither A.A. nor many other SATs are based on science, nor do they seem interested in doing any scientific studies which might test whether the treatment they give is effective. A.A. members *know* A.A. works, so they don't need studies to verify the effectiveness of the program. They have very vivid [testimonials](#) from people like [Bill Wilson](#), the founder of AA, of hopeless alcoholics whose only salvation was a religious experience. But others might like to know how many don't stay and go through the program? How many go through it, but leave? We only hear about the successes, not the failures, because the failures aren't counted; they aren't around to be counted. We won't read about any comparisons with non-AA programs, nor will we hear about those substance abusers who quit drinking or drugs without any treatment at all. They didn't need a "Higher Power" or the group's help to quit; they did it on their own. How is that possible? If alcoholism is a disease for which there is no cure, and which requires the substance abuser to give oneself over to a "Higher Power," how do some people quit abusing alcohol or drugs on their own? This should not be possible if either the AA philosophy or the disease theory is correct. If alcoholism isn't a disease, then it is foolish to seek a "cure" for it. It is foolish to have treatment centers with

patients who are “suffering from alcoholism.”

Even if alcoholism is a sin and a matter of self-control, it is especially foolish to treat all alcoholics with the AA 12-step program. All alcoholics don't come from the same mold. They are not all physically addicted. They are not all psychologically addicted. They are not all addicted. They are not all victims. They are not all diseased. They are not all hopelessly without any self-control. They are not all completely irrational and incompetent. They are not all mentally ill. They don't all need therapy or medication. There are probably many good programs besides those based on the “disease” or the “sinner” models of the alcoholic. Substance abusers who want to get back some control in their lives might check out some of these other programs and not feel it's either AA or a “chemical dependency” program or nothing.

One final note: it seems rather curious that [Bill Wilson](#), founder of AA, credited people like [Carl Jung](#) and William James' [Varieties of Religious Experience](#) for helping him see that “ego collapse” is the common denominator in conversion experiences and that such an experience was the one the alcoholic must have in order to reform. (Wilson also wrote fondly to Jung that some in AA had become devotees of [psychic](#) powers and the [I Ching](#), a favorite of Jung's.) Jung had simply thought that some people were hopeless and therapy could do them no good, but perhaps religious devotion could help them. James catalogued experiences as part of his pragmatism: the truth of religion is in its fruits, its effects on a person's life. The idea is attractive is you keep one eye shut and ignore the Jim Jones, Jerry Falwells, David Koreshes and Pat Robertsons of the world. The idea might seem true to someone whose selective memory ignores all the alcoholic priests, priestesses, and devoted churchgoers.

See related entry on [codependency](#).

further reading

[reader comments](#)

- ["The Discovery of Addiction: Changing Conceptions of Habitual Drunkenness in America"](#) by Harry G. Levine
- ["A Moral Vision of Addiction: How People's Values Determine Whether They Become and Remain Addicts"](#) by Stanton Peele
- [Secular Organizations For Sobriety \(SOS\) Home Page](#)
- [Habit Smart - Addictions Page](#)
- [Standton Peele Addiction Website FAQ](#)
- [Rational Recovery](#)

- [Addiction Treatment: what on earth are we doing?](#) by Robert Westermeyer, Ph.D.
- [Coping with Addiction](#) by Arthur T. Horvath Ph.D., A.B.P.P.
- [Under the Influence](#) - Supports the biogenic model that "alcoholism is a primary addictive response to alcohol in a biologically susceptible drinker, regardless of character and personality"
- [Online AA Resources](#)
- [Bill Wilson's Letter To Dr. Carl Jung , Jan 23, 1961](#)
- [Booze, God and 12 Steps R.V. Scheide, *Sacramento News and Review* January 7, 2002](#)

[Fingarette, Herbert. \(1988\). *Heavy Drinking: The Myth of Alcoholism as a Disease* Berkeley: University of California Press.](#)

Ofshe, Richard. "The Social Development of the Synanon Cult: The Managerial Strategy of Organizational Transformation," *Sociological Analysis* 41: 109-127, 1980.

[Peele, Stanton. \(1989\). *Diseasing of America*. Boston: Houghton Mifflin.](#)

[Sykes, C.J. \(1992\). *A Nation of Victims: The Decay of the American Character*. New York: Saint Martin's Press.](#)

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Last updated 07/01/02



[subliminal](#)

[sunk-cost fallacy](#)



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reader comments:

codependency

6 Jul 1996

Since the 70's, the number of family counselors has grown by 50,000. Educated in social work, pastoral training, women's studies, with a very strong anti-patriarchy orientation, we now have a psychological model that sees abuse and addiction behind every curtain. Both addiction and abuse have been redefined to include almost any touch in the one case, or any consumption in the other. I suspect that men in particular have been labeled in this new scheme of things as unfit fathers in divorce proceedings. In the 12 step framework, one is either in denial or recovery. There is no other state. Similarly, one is either an enabler or a controller in the codependency model. Both are all encompassing systems, based on simplistic assumptions.

Fires are fed by the puritanical and "spiritual" bent of much contemporary new age social thought, particularly in California. Feminist psychological theory adds its own ingredients to the mix with the notion that the only way to "recovery" is through group grope identity as victims. Sex therapists and psychiatrists speak against the metaphor of addiction, only to be subject to witch hunts. The 12-step framework is firmly entrenched in social and legal institutions in the US, despite the fact that AA only claims a 10% success rate. The framework delegates context to a matter of derivative concern, so that poverty or unemployment or other social conditions become secondary.

Another question is what defines addiction. This psychological notion of addiction, as opposed to the physiological, came up mid 70's. Do we now have more alcoholics than before? And if so, why? Because we have redefined the term? Or is it simply a device of a very powerful social force and medical industry?

We live in a very effeminate culture with little respect for the truth or for the men who would speak it. Have AA and the codependency movement become new sacred cows? I suspect they have.

Katherine Carroll Craven

 [codependency](#)

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reader comments:

law of truly large numbers

07 Mar 2003

Some of your statistics under subgroup "coincidences" are a bit misleading. In regards to a person winning the lottery twice, The probability is not 1 in 40 that they will win the lottery a second time. Obviously, the odds of winning the lottery just don't diminish if you have already won. Numbers don't play favorites. The correct probability is that IF You win the lottery a second time, the odds of winning it twice within a two month period are 1 in 40 compared to winning it twice over a several year period. If it were not, You would see a lot more mathematicians playing the lotto. Also, it might be interesting to note that in order for two people to have the same birthday on any given SPECIFIED day, you need to have a group of at least 250 people in order for the probability to be 50-50. One wouldn't want to accuse you of selective thinking. Either way, as you have noted, with a large enough sample, truly large coincidences will happen. It is just a lot more enjoyable when you happen to be making several million dollars in the process.

G. Gotham Smith

25 Sep 2001

In "lawofnumbers.html" there are some problems in the table "Geller's Mysterious Number 11". Here are eleven errors I found:

- 1.) "Twin Towers - standing side by side, looks like the number 11" - "looks" s/b "look" - There is an unneeded line break after the work "like".*
- 2.) "*The first plane to hit the towers was Flight 11 by *American Airlines or AA -> A=1st letter in alphabet so we have again 11:11" - unneeded line break after the word "by". - unneeded star before "American Airlines. - How do we get "11:11"? Is this from AA:11-> 11:11?*
- 3.) "The # of story is 110 (2x) 110 - 110 Remember that the zero "0" is not a number, so we have 11:11" - "story" s/b "stories". - How about "The # of stories in each tower was 110, 110:110. Since zero, "0", is not a number we have 11:11"*
- 4.) "The house where they believed to have lived had # 10001 again don't count the zero....." - They who? - The five periods s/b three*

5.) "Skyscrapers, American Airlines AA = 11" - This is a little confusing, why not just add "Skyscrapers" to the eleven letter words list. - AA = 11 is a repeat of an early point. ----- Here's another eleven letter group "Bob T. Carroll", not to mention how the last two letters of "Carroll" form an eleven, "ll". Are you ready to come clean about your connection with the bombing?

And one more eleven letter group "Eleven Errors", (treat the "o" like a zero and don't count it).

Tim B

reply: You are right.



[law of truly large numbers](#)

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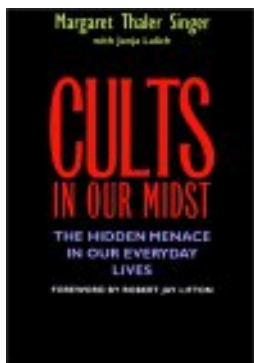
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[In which the author struggles to escape the psychological shackles of a self-help seminar by Kirsten Marcum](#)



[Cults in our Midst by Margaret Thaler Singer](#)

Large Group Awareness Training programs

Large Group Awareness Training (LGAT) programs are personal development training programs in which dozens to hundreds of people are given several hours to several days of intense instruction aimed at helping participants begin to discover what is hindering them from achieving their full potential and living more satisfied lives. LGAT programs have also been developed for corporations and public agencies, where the focus is on improving management skills, conflict resolution, general institutional strengthening, and dealing with the eternal problem of employees who drink too much or use too many drugs.

LGAT gurus claim to know how to help people become more creative, intelligent, healthy, and rich. They focus primarily on the role interpersonal communication plays in self-esteem and in defining our relationships with others.

LGAT gurus claim to know why their participants are not happy or why they are not living fulfilled lives. They assume everyone is being hindered by the same things and that one approach will suit all. Some LGAT gurus use public television and books as their vehicles. Others give seminars in hotel ballrooms. Some use infomercials and peddle books and tapes to the masses to help get them on the path to self-realization and success.

The U.S. Army might think it takes a few years to "become all that you can be," but the gurus of self-help think it can be done in a few hours or days.

These gurus might all take the one-size-fits-all cookie cutter approach to self-help, but the founders of such programs as [est](#), [Landmark Forum](#), [neuro-linguistic programming](#), [Tony Robbins seminars](#), etc., use their own unique cookie cutters.

Though some advocate visualization, self-hypnosis, and other techniques for achieving self-realization, most LGAT programs focus on *communication* skills and the effect of language on thought and behavior. Those running the programs must excel in those skills. The trainers are motivators. They must use their powerful communication skills to persuade others to believe that (a) they (the trainers) know something valuable about fulfilling one's potential; (b) the valuable knowledge can be transmitted to the participant in a short time; (c) the trainee can expect to reap tangible, even if subjective, benefits in a short time (such as improved relationships with others or feeling better about oneself); and (d) the trainee has only experienced a small taste of the wonderful pleasure and fulfillment that awaits those who sign up for

advanced training. In short, the trainers are not just teachers; they are sellers. Their main job is to motivate participants to buy more services, i.e., sign up for more courses. The fact that trainers are unlikely to do any follow-up on their trainees, except to try to persuade them to take more courses, indicates that their main interest is not in helping people lead more fulfilling lives. The trainers have a sales job to do. They are paid commissions for the number of people they recruit and train, not for the number of people they truly help. It is not in their interest to do follow-up studies on their trainees. It is in their interest to do follow-up recruiting calls.

A short amount of reflection should make it apparent that the gurus of personal development training are like those infomercial stars who promise to share with you their secrets on how to make millions of dollars by taking out classified ads or by buying repossessed properties. The real money is not in taking out classified ads or buying repossessions; otherwise, that is what the infomercial star would be doing instead of making infomercials. The real money is in selling the idea to others. If the trainers who work for Tony Robbins or Landmark Forum could realize their true potential in a meaningful, lucrative way, would they take a sales commission job? Would they work for a guru for a relatively small sum of money, while investing a rather extensive amount of time in the hopes of some sort of breakthrough? No. If they want to reach their own true potential they must break away and start their own personal training program. Which is exactly what many of them do.

Personal training programs are likely to be successful, however, if only because (a) the participants are strongly motivated toward self-improvement and (b) the trainers force participants to reflect on themselves, their lives and their relationships. Such motivation and reflection will result in either perceived insights or renewed effort to gain such insights. Being surrounded by many others in search of the Promised Land serves to energize participants and to give them hope. Ultimately, the main product being sold by human potential gurus is hope itself. It should be obvious that in itself this is not a bad thing. We all need hope. Without hope, there is no point in making plans for the future. Without hope, there is no point in working on a relationship or setting goals. Thus, insofar as participation in Large Group Awareness Training increases one's hope for finding one's way and for achieving one's goals, it is good. Even false hope may be better than no hope at all.

Since fear is a major obstacle to hope, the human potential trainers must help participants overcome those fears which hinder development. For example, there can be no hope of achieving a goal if the fear of failure is so strong that one avoids setting goals in order to avoid failing. After all, if you don't try something, you can't fail at it. Likewise, no troubled relationship can improve if one fears rejection by the other to such a degree that one will not even try to heal the wounds. One must overcome fears of failure, rejection, ridicule, humiliation, etc., if one is to have any hope of achieving a very meaningful existence as a human being. One is powerless to achieve anything if one is

paralyzed by fear. Empowerment to achieve requires empowerment to overcome one's fears and thereby gives one hope. The most direct way to empower someone would be to convince them that if what they most fear were to happen not only would nothing be worse than it already is, but most likely things would be even better than they are. Another way is to convince people that their own beliefs are hindrances to success and that they can replace those beliefs at will.

No one knew this better than [Leo Buscaglia](#), one of the more successful LGAT gurus of the 1970s and 1980s. He used books, lectures and public television programs to promote the idea that the key to everything is *love*. He popularized notions that Nietzsche, Bertrand Russell and B. F. Skinner had written about, e.g., the psychological power of loving those you fear. "Love your enemies," he would say. "It'll kill them!" Your enemy doesn't have to be another person, however. Your own fears can be your enemies. Embrace your fears, it'll kill them. If your relationship fails, what is the worst that can happen? The relationship ends. You can dwell on it, crawl into yourself, withdraw, surrender. Or you can learn from it, grow, develop, be prepared for a better relationship in the future. It's up to you. As the Stoics said: know what's in your power and what is not. Don't try to change what is not in your power to change. You can't control what others say or do, but you can control your attitude, your emotional response, to what they say or do. In short, if you don't try, you can't succeed. If you try and fail, you can still succeed. It's up to you. It is up to the human potential guru or trainer to convince you of this.

Self-growth programs such as [est](#), [Landmark Forum](#), [neuro-linguistic programming](#) (and even [cults](#) like [Scientology](#)) can point to many "successes." They can demonstrate that their programs "work." They can bring forth to testify on their behalf hundreds, if not thousands, of satisfied customers, many of them famous celebrities such as John Denver, John Travolta, Yoko Ono, Cher, Valerie Harper and others. Many people apparently find that their lives are better after they get involved in est, NLP, Landmark Forum, or Scientology. Those of us who have been trained to study philosophy and psychology, who have a deep sense of the nature of speculation and empirical research, are able to recognize the [pseudoscientific](#) nature of such programs. We know that [testimonials](#) do not validate a self-help program. We know that there is significant [post hoc reasoning](#) by both gurus and their followers. We are aware of the role of [subjective validation](#), [confirmation bias](#), [wishful thinking](#), [the regressive fallacy](#), and [communal reinforcement](#) in the success of such programs. We know there is little or no research done by the promoters of these programs to (a) test causal claims that might establish some degree of effectiveness to their methods; (b) establish clear criteria for what counts as "successful" training; (c) keep records of "failures" or those who feel ripped off or harmed by the program.

Nevertheless, despite the lack of proof that these programs work the way their advocates claim, and despite the fact that many trainers are overly zealous in

their recruitment of participants in seminars and advanced seminars, many participants feel they benefit greatly from such programs. However, research has shown that the *feelings* of having benefited greatly from participation in an LGAT do not correspond to beneficial changes in behavior (Michael Langone, "Large Group Awareness Training Programs," *Cult Observer*, v. 15, n. 1, 1998). Also, many of those who feel they have benefited do not understand that others may not feel they benefit at all from such programs. To their healthy friends and family members, the zealot may appear to have been brainwashed. Their enthusiasm seems unnatural and disproportionate. If they were unbalanced before taking the program, they may appear to have gone beyond "breakthrough" into "breakdown."

See **related entries** on [est](#), [firewalking](#), [Landmark Forum](#) and [neurolinguistic programming](#).

further reading

[reader comments](#)

- [The Awareness Page](#) - everything you wanted to know about various LGATs
- [AFF's page on Large Group Awareness Trainings](#)
- [Jamal Mazrui's Empowerment Zone](#) an amazingly extensive list of Internet links for "helping individuals and communities achieve self-actualization and full citizenship"

Barry, Dave. "Altered States" in *The Miami Herald*, April 13, 1997. (Humorist Dave Barry takes Peter Lowe's SUCCESS 1997 12-hour success seminar featuring Anthony Robbins, Elizabeth Dole, Rabbi Harold Kushner, Brian Tracy, Lou Holtz, Jim Morris, Peter Lowe, Pat Riley, Dr. Ted Broer, George Bush, and Dan Kennedy.)

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[Landmark Forum](#)

[law of truly large numbers](#)



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[Seeing is
believing!](#)

levitation

Levitation is the act of ascending into the air and floating in apparent defiance of gravity. [Spiritual masters](#) are often depicted as levitating and the ability to levitate is taken as sign of blessedness by some. Others see levitation as [a conjurer's trick](#). No one really levitates; they just *appear* to do so. Clever people can use illusion, "invisible" string, and magnets to make things appear to levitate.

There are people in [transcendental meditation](#) who will sit cross-legged and hop up and down on their butts, claiming that they are flying. Perhaps they are...for one-millionth of a second one millimeter above the ground. They say they feel lighter than air and are quite proud of their butt-hopping achievements.

See **related entries** on [the Indian rope trick](#) and [transcendental meditation](#).

further reading

- [Yogic flying](#)

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\), chapter 5, "The Giggling Guru: A Matter of Levity."](#)

[Rawcliffe, Donovan Hilton. *Occult and Supernatural Phenomena* \(New York: Dover Publications, 1988\).](#)

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[ley lines](#)



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psychometry

Psychometry is an alleged [psychic](#) power which enables one to [divine](#) facts by handling objects. Commonly, the psychic handles some jewelry or clothing, claims to be able to see or feel the object's [aura](#), and begins [shotgunning](#). Many [psychic detectives](#) claim to have psychometric powers. Skeptics explain this "power" as a matter of [cold reading](#) and [selective thinking](#).

further reading

- [Noreen Renier: The Media's Rising Star Psychic Sleuth](#) by Gary P. Posner

[Randi, James, *Flim-Flam!*, \(Buffalo, New York: Prometheus Books, 1982\), pp. 265ff.](#)

Lyons, Arthur and Macello Truzzi, *The Blue Sense: Psychic Detectives and Crime* (New York: Warner Books, 1991).

[Nickell, Joe. *Psychic Sleuths: ESP and Sensational Cases* \(Buffalo, N.Y.: Prometheus, 1994\).](#)

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Last updated 12/30/01



[psychology](#)

[psychotherapy](#)



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collective hallucinations

Where belief in miracles exists, evidence will always be forthcoming to confirm its existence. In the case of moving statues and paintings, the belief produces the hallucination and the hallucination confirms the belief. --D.H. Rawcliffe

Collective hallucinations are sensory hallucinations induced by the power of suggestion. They generally occur in heightened emotional situations, especially among the religiously devoted. The expectancy and hope of bearing witness to a miracle, combined with long hours of staring at an object or place, makes certain religious persons susceptible to seeing such things as weeping statues, moving icons and holy portraits, or the Virgin Mary in the clouds.

Those witnessing a "miracle" agree in their hallucinatory accounts because they have the same preconceptions and expectations. Furthermore, dissimilar accounts converge towards harmony as time passes and the accounts get retold. Those who see nothing extraordinary and admit it are dismissed as not having faith. Some, no doubt, see nothing but "rather than admit they failed...would imitate the lead given by those who did, and subsequently believe that they had in fact observed what they had originally only pretended to observe....(Rawcliffe, 114).

Not all collective hallucinations are religious, of course. In 1897, Edmund Parish reported of shipmates who had shared a ghostly vision of their cook who had died a few days earlier. The sailors not only saw the ghost, but distinctly saw him walking on the water with his familiar and recognizable limp. Their ghost turned out to be a "piece of wreck, rocked up and down by the waves" (Parish, 311; cited in Rawcliffe, 115).

See **related entries** on [miracles](#) and [pareidolia](#).

further reading

[Nickell, Joe. *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books: Buffalo, N.Y., 1993\).](#)

Parish, Edmund. *Hallucinations and illusions; a study of the fallacies of perception* (New York: C. Scribner's Sons, 1897).

[Rawcliffe, Donovan Hilton. *Occult and Supernatural Phenomena*\(New York: Dover Publications, 1988\).](#)

[Slade, Peter D. , Richard P. Bentall. *Sensory Deception: A Scientific Analysis of Hallucination* \(Johns Hopkins University Press, 1988\).](#)

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[cold reading](#)

[communal reinforcement](#)



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Kabalarian Philosophy

The Kabalarian Philosophy (KP) was the brainstorm of Mr. Alfred J. Parker. Since the death of Mr. Parker in 1964, the Kabalarians, headquartered in Vancouver, B.C., have been led by Ivon Shearing who was sentenced to five years in prison in 1997 for sexually abusing several teenage girls over a twenty-five year period. He was convicted of two counts of rape, three of sexual assault, four of indecent assault, and three of gross indecency. Two of the indecent assault convictions were overturned by an appeal court in 2000, and a retrial ordered.* In 2002, after serving only 16 months of his five-year sentence, Shearing was granted a retrial on his rape and sexual assault conviction of a fifteen-year old girl.*

KP "teaches a concept of constructive living which provides the key to understanding how to control life to bring into reality the happiness, mental freedom, and personal success that everyone seeks." The Kabalarians have a [website](#) where they offer for sale many of Mr. Parker's books.

Why KP rather than any of the other million and one solutions to the riddle of existence? Because the others lack "tangible reality." One tangible reality which KP has is "Name Analysis." According to the KP,

Every alphabet has a consistent mathematical order, which allows it to be measured. An analysis of the letters in your name will determine the qualities of your personality.

Your name determines your every experience. It defines your personal strengths [sic] and weaknesses both mentally and physically. It interprets your whole nature. It shows your position in life and your measure of success or failure. When you are named your destiny is created.

This sounds similar to another tangible reality known as [numerology](#). According to KP my destinies are:

The name of Bob gives you the desire to be original and independent, and to utilize your abilities in leadership. You are inclined to be candid in your expression, saying things straight-to-the-point but without intending offence [sic]. If this name is used a great deal, you would be practical, skeptical, and very individual in your approach to life. With a desire to assume responsibility early in life. The weaknesses would show through head tension causing sinus

trouble, headaches or headcolds.

Your name of Robert creates a refined, diplomatic nature that elicits the co-operation and respect of others. You appreciate a high standard of living and the attendant luxuries and comforts; however, the name does spoil ambition and confidence, and creates a self-depreciating quality that is a deterrent when you must force an issue or even carry out an important decision.

For some reason, middle or last names are not important, but I couldn't resist looking mine up anyway.

The name of Todd has some very fine characteristics but it does not give you verbal expression. You have profound thoughts on life but do not always express them for fear of being misunderstood. This name makes you fond of nature and you appreciate being by yourself where you can relax and ponder over life's mysteries. As you desire peace and harmony, you avoid people when there is anything you find unpleasant. Thus you appear somewhat unsociable and aloof. You have to guard against a jealous nature which causes misunderstanding and wrong feelings in close association. You also tend to take a know-it-all attitude and to be domineering, which others feel and resent. Reading, writing, and art are forms of expression that you most appreciate. Worry and responsibility are causes of frustration. The greatest lack in this name is in verbal expression, which is so necessary for success. Physically, you could be affected in the respiratory system, lungs and heart, etc.

Your name of Carroll creates extreme sensitivity to the thoughts of others and a total lack of expression of your own thoughts and feelings, except through the medium of writing. Under this name you seldom find anyone who, you feel, understands you. You are easily embarrassed and then you become quiet and secretive in order to avoid being laughed at or misunderstood. You keep your thoughts and feelings inside and only feel really relaxed and at peace at such times when out in nature or listening, alone, to beautiful music. This name also gives you a weakness in your chest which could lead to pleurisy or heart murmurs, or any trouble affecting the bronchial organs.

Of course, some of these descriptions are correct. They would be true of almost anybody. Some of the more specific claims are correct, but most are

not. An analysis of this sort of personality profiling is taken up in the entry on [the Forer effect](#).

What is unique about KP is its advocates believe that you can change your destiny by changing your name. You can call them and they will help you do this, should you find another name with a better destiny than the one your ignorant parents unwittingly strapped on you at birth. For example, maybe the following describes a destiny you would not like to have:

The name of ----- gives you sensitivity and refinement, an appreciation of nature, and cultural interests. You are able to express yourself through writing, more so than verbally. You abhor vulgarity, and any signs of friction or violence disturb you. You want to work in a position with a refined atmosphere, rather than one of noise and confusion. You can be affected by the thoughts of others. Uncontrolled feelings and moods of depression are the result. This name does not give you the strength of mind and body to carry out your plans. In fact, the high-strung nature resulting from use of this name has a physically weakening influence, robbing you of vitality and limiting your endurance for hard work. Your health could be adversely affected by this name, giving rise to weaknesses in the respiratory organs, kidneys, and bladder.

If the fate of this name is not to your liking, change your name from Adolph to Adolf. It will make a world of difference and will be good for your bladder.

See related entries on [cold reading](#), [the Forer effect](#), [selective thinking](#), [self-deception](#), and [wishful thinking](#).

further reading

- [The Kabbalarian Society of Canada](#)
- [An Insider's View of the Kabbalarian Church](#) - The BC Skeptics



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reader comments:

The Mineral Doctor

30 Sep 2000

Wallach states that he did 17,500 autopsies, 3000 of which were on humans. He states at <http://www.wellnesspublications.com/about.htm> that the autopsies were done between 1962 and 1967. That implies a rate of 2,500 to 4,300 autopsies per year or 8-12 autopsies per day, depending upon whether the period in question is from the beginning of 1962 through the end of 1967 (6 years) or from the end of 1962 through the beginning of 1967 (4 years).

David Feustel

reply: Whatever he claims, it is probably a lie. He ought to call himself Dr. Pinocchio.

29 Aug 1998

Regarding your skepticism on Dr. Wallach, I was profoundly impressed with his tape "Dead Doctors Don't Lie."

reply: Good, but I must say I am not very impressed with the segue from my skepticism to your profound admiration for the Mineral Doctor.

So far, it has been the only source of material I've read from Dr. Wallach, but I have to say that when I read your Web Article regarding his claims, I noticed that there was very little on your part to support your skepticism.

reply: Are you trying to flatter me, or what?

There were 'numerous' references on his tape to studies that were done by both respected sources and organizations both private and governmental.

reply: Which study were you most impressed with? the Senate document (undated but probably 30 or 40 years old) or the AMA study done in 1939?

I have worked in the medical field for over 10 years and have seen these pitiful sick people taking grocery bags full of this medicine and that medicine, sometimes prescribed by a half dozen different doctors.

reply: Well, you certainly have the credentials to recognize a charlatan when you see one.

I can admit, unbiased, that the only way I would believe his claims 100% is if I lived to be over a hundred years, but at the same time, I see no reason to disprove him.

reply: Neither do I, but I have good reasons for doubting his claims that just about everyone dies from some sort of mineral deficiency and there are five cultures where people live over one hundred years on average.

Although, he says the only place in the U.S. to get these vitamins is in a pit in Utah, do you know of another U.S. location where someone has found a source?

reply: Someone with your experience in the medical field should know the difference between minerals and vitamins. Anyway, I see good reason to doubt that the only minerals that are any good are "colloidal" minerals. Furthermore, I have good reason to be skeptical that only colloidal minerals which come from a place that the good doctor has an economic interest in are going to do me any good. I don't doubt, by the way, that [many people have very good reasons for taking vitamin and mineral supplements.](#)

I know there are several in the world and Dr. Wallach states more than once in his tape that you can get these supplements at most health food stores. I also contend that Dr. Wallach doesn't state that all you have to do is drink the "magic elixir" and all will be well. He never states that exercise, good eating habits and non-smoking will not affect your longevity. He doesn't even imply that. He refers to the "supplement" as a "supplement." Remarking that it is to be added to your daily regimen and not the cure-all for everything that ails you.

reply: He never mentions that his audience ought to exercise, not smoke, and eat healthy foods. In fact, he implies that it is pointless to try to eat healthy foods because most of the minerals have been depleted from the soil. I guess he doesn't know anything about modern agriculture. As for calling a supplement a supplement, I assume he meant that a person still has to eat, but he seems clearly to imply that what you eat isn't all that important, as long as you are getting everything you need in your colloidal elixer.

We all have our own opinions and in mine, I believe that above all, "hope" is a very powerful tool. It makes you pay attention, feel good and have a positive outlook. Doctors tend to "be honest" with their patients and sometimes try not to give (false?) hopes. In fact, they try to not to give much hope at all. Some do though. Some give a great deal of hope. It helps promote better outcomes in the patient and those who are interested. I would be less likely to struggle through

a bad illness if I thought there was no reason in trying.

reply: Hope is what Dr. Wallach and every other snake oil seller in the world is selling. It is a long way, however, from encouraging someone when they are facing a difficult obstacle, to defrauding and manipulating them with false hope.

I think Dr. Wallach deserves some credit. He was right on the money about many things. One of these was the study done with salt and HTN. People who took medicine for HTN and cut out the salt, had no clinically relevant change in blood pressure. Salt was not the thing that needed to be changed. Even today, doctors are suggesting people with HTN cut down on salt. Are doctors telling patients to stop taking homogenized dairy products and homogenized oils? Food products which are physically altered to the point where the microscopic particles are sharp and scar arteries? I bet not.

reply: I don't think he deserves much credit. You seem to think that if someone is right about one thing, we should trust him in all other things, even if the evidence is against him. I don't doubt that the medical establishment will be proved wrong about many things. However, no matter how many errors are made by medical doctors, the sum of those errors will never make a sufficient case to justify the Mineral Doctor's claims about colloidal minerals.

If you are really interested in salt, you might want to read Gary Taube's article, "The (Political) Science of Salt," in the [August 14, 1998](#), issue of *Science*.

I believe that Dr. Wallach took a proactive role in health research. He left out medicine and other means and just concentrated on the mineral aspect. Of course, there wasn't enough room on the tape to cover "every" possible mention to health control and longevity -- he concentrated just on the mineral aspect. I believe he made his point. I believe he was credible and I believe that until someone can disprove him with more than conjecture and hearsay, I believe him and most people that see what he is trying to do, will believe him, too. In my humble opinion.

reply: Yes, he and every other quack and medical con man in the universe takes a proactive stance in health research, if by that you mean that they invent data at will to support their claims. I don't believe for a minute that the reason he focused only on minerals was because he was running out of tape. He spend a good deal of time ridiculing doctors, telling anecdotes about obituaries of medical doctors, etc. If he had anything else to say, he could have figured out a way to fit it on an hour-long tape.

The fact that you and others like you believe he is credible reflects your desire to believe him. He banks on your gullibility and desires. Literally.

Believe it or not, I am also an incredible skeptic.

Brian Olson

reply: You don't have to tell me. You are truly an *incredible* skeptic.

16 Sep 1997

I found your OPINIONS to be very interesting on the subject of Dr. Wallach's tape and Colloidal minerals etc. But just as with Dr. Wallach's ideas, your rebuttal was nothing but opinion as well.

You're not implying that all opinions are equally reasonable, are you?

As for my reason to write you, I have been taking what you call the UNNECESSARY colloidal minerals for the last year. I am 32 years old and have, without fail, gotten a cold at least 3 times per year for the last 15 years of my life..sometimes 4. I am a teacher who works in enclosed rooms and buildings with hundreds of germ carrying kids 5 days a week. During the last year I have had no colds, flu, allergies, or any other health ailment that may be spread by a bug going around a school. You the eternal skeptic, may just call that a coincidence, I do not. And if you think that I may just be having a "Placebo effect" from the supplements I take, I say Who Cares? I'm not getting sick, I feel great and yes, even some of the premature gray hair on my head is going away.

Thanks for sharing the good news! I hope you haven't jinxed yourself by writing to me, the eternal skeptic. The last person who did so contracted yellow fever. Anyway, far be it from me to suggest you are having a placebo effect. You seem to be sure it is the colloidal minerals that is causing your change in health. Yet, you also suggest that you don't care if it is the minerals or not. Your cavalier attitude does not seem to me to be one I would want taught to my children. I would want my children to be curious as to whether it was the minerals that were making my hair change colors and making me feel so good. I'd want to encourage them to do a controlled study, to make sure it wasn't some other change I had made in lifestyle or diet, or that it wasn't a fluke, or that I wasn't self-deceived (if everone else thinks your hair is as gray as ever, you need a reality check), etc. In short, I would care and I would want the teacher of my children to care. This will teach them the difference between unscientific/uncritical thinking and sceintific/critical thinking. Or, perhaps you teach science from the Bible and do not wish to contaminate the minds of your young charges with such filth as science and critical thinking.

I don't know what kind of doctor you are, but even you must agree that you cannot receive the nutrition you need from just food alone. Have an open mind, and besides if you don't like what Dr. Wallach says....DONT LISTEN

(remember the 1st amendment)

Sincerely,

Paul C. Stensrud

Average Joe Teacher

Colloidal Mineral Taker

Well, I have to admit that I am not a real doctor like Dr. Wallach, the naturopath/veterinarian, but I do agree that you can't receive all the nutrition you need from food alone. That is why I firmly advocate at least one Sierra Nevada Pale Ale a day. It will help you deal with people who confuse the First Amendment with the attempt to stifle criticism.

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[Joel Wallch, the
mineral doctor](#)

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warlock

A warlock is, literally, one who breaks his word (*w[ae]r-loga*, Old English) i.e., a deceiver. The word was used to designate Satan and came to designate wizards, [sorcerers](#) and male [witches](#), i.e., those who practice black magic.

further reading

[A Brief Dictionary of New Age Terminology](#)

Last updated 11/12/02

[Our Lady of Watsonville](#)

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Lysenkoism

Lysenkoism refers to an episode in Russian science featuring a non-scientific peasant plant-breeder named Trofim Denisovich Lysenko [1898-1976]. Lysenko was the leading proponent of Michurianism during the Lenin/Stalin years. I. V. Michurin, in turn, was a proponent of Lamarckism. Lamarck was an 18th century French scientist who argued for a theory of evolution long before Darwin. Lamarck's theory, however, has been rejected by evolutionary scientists because it is not nearly as powerful an explanation of evolution as natural selection.

According to Lamarck, evolution occurs because organisms can inherit traits which have been acquired by their ancestors. For example, giraffes find themselves in a changing environment in which they can only survive by eating leaves high up on trees. So, they stretch their necks to reach the leaves and this stretching and the desire to stretch gets passed on to later generations. As a result, a species of animal which originally had short necks evolved into a species with long necks.

Natural selection explains the long necks of the giraffes as a result of the workings of nature which allowed the species to feed off of the leaves which grow high on trees rather than graze as short-legged, short necked animals are prone to do. There was no purposive behavior which was a response to the environment which was then passed on to later generations. There was simply an environment which included trees with leaves up high and that was a favorable food source to long-legged, long-necked animals such as the giraffe. In fact, according to natural selection, if that were the only food source available, only animals with long- necks, or animals which can climb or fly, would survive. All others would become extinct. There is no plan here, divine or otherwise, according to natural selection. Furthermore, there is nothing special signified by the fact that a species has survived. *Survival of the fittest* means only that those who have survived were fit to survive. It doesn't mean that those who survive are *superior* to those species which don't. They've survived because they were fit to adapt to their environment, e.g., they had long necks when there was a good supply of food readily available high up in the trees and there were no other catastrophic disadvantages to their height. For example, if a species got so tall that it became impossible to mate, it would become extinct. Or, if the only food source on high happened to have a substance in it which rendered giraffes sterile, there would be no more giraffes, no matter how hard they tried to will themselves potent.

Lamarckism is favored by those who see *will* as the primary driving force of life, e.g., the 20th century French philosopher Henri Bergson. Darwinism, or natural selection, is hated by many of those who believe God created

everything and everything has a purpose: the fundamentalist teleologists of the world. One might think that Marxists would prefer Darwinism with its mechanical, materialistic, deterministic, non-purposive concept of natural selection. Lamarckism looks like it might be preferred by free market advocates with their emphasis on will, effort, hard work and choice. But then Russia and the Soviet Union weren't really Marxists. They turned the dictatorship of the proletariat into the dictatorship of the professional dictator (Lenin, then Stalin). And even with the death of Stalin, the dictatorship of the communist party leaders who controlled everything, including the economy, took over.

In any case, Michurin's views on evolution found favor with the party leadership in the Soviet Union. When the rest of the scientific world were pursuing the ideas of Mendel and developing the new science of genetics, Russia led the way in the effort to prevent the new science from being developed in the Soviet Union. Thus, while the rest of the scientific world could not conceive of understanding evolution without genetics, the Soviet Union used its political power to make sure that none of their scientists would advocate a genetic role in evolution.

It was due to Lysenko's efforts that many real scientists, those who were geneticists or who rejected Lamarckism in favor of natural selection, were sent to the gulags or simply disappeared from the USSR. Lysenko rose to dominance at a 1948 conference in Russia where he delivered a passionate address denouncing Mendelian thought as "reactionary and decadent" and declared such thinkers to be "enemies of the Soviet people" (Gardner 1957). He also announced that his speech had been approved by the Central Committee of the Communist Party. Scientists either groveled, writing public letters confessing the errors of their way and the righteousness of the wisdom of the Party, or they were dismissed. Some were sent to labor camps. Some were never heard from again.

Under Lysenko's guidance, science was guided not by the most likely theories, backed by appropriately controlled experiments, but by the desired ideology. Science was practiced in the service of the State, or more precisely, in the service of ideology. The results were predictable: the steady deterioration of Soviet biology. Lysenko's methods were not condemned by the Soviet scientific community until 1965, more than a decade after Stalin's death.

Could something similar happen in the U.S.? Well, some might argue that it already has. First, there is the [creationist](#) movement which has tried, and at times been successful, in banning the teaching of evolution in public schools. With Duane Gish leading the way, who knows what would happen if Pat Robertson became President of the United States and Jerry Falwell his secretary of education. Then, of course, there are several well-known and well-financed scientists in America who also seem to be doing science in the name

of ideology: not the ideology of fundamentalist Christianity but the ideology of racial superiority. Lysenko was opposed to the use of statistics, but had he been clever enough to see how useful statistics can be in the service of ideology, he might have changed his mind. Had he seen what J. Philippe Rushton, Arthur Jensen, Richard Lynn, [Richard Herrnstein or Charles Murray](#) have done with statistical data to support their ideology of racial superiority, Lysenko might have created a department of Supreme Soviet Statistics and proven with the magic of numbers the superiority of Lamarckism to natural selection and genetics. For these social pseudoscientists have never seen a statistical correlation they couldn't turn into a causal claim fitting their racist ideology. Lysenko might have done the same for his Michurian/Lamarckian ideology.

further reading

[reader comments](#)

- [Extract from *Marxism and the Philosophy of Science: A Critical History* by Helena Sheehan](#)
- [Getting Started on Lysenkoism](#) by Robert M. Young
- [The Present Danger To Science and Society](#) by Frederick Seitz
- [Skeptic Magazine Interview With Robert Sternberg on *The Bell Curve*](#)

[Gardner, Martin. "Lysenkoism," ch. 12 in *Fads and Fallacies in the Name of Science* \(New York: Dover Books, 1957\).](#)

[Levins, Richard and Richard Lewontin. "Lysenkoism," in *The Dialectical Biologist* \(Boston: Harvard University Press, 1985\).](#)

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Last updated 03/11/02

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[Japanese Exorcist
Given Death Penalty](#)

May 11, 2002

According to a Gallup poll, belief in possession by the devil has decreased from 49% to 41% over the past decade.

exorcism

If ignorance is bliss, demon chasers must be in nirvana.

An exorcism is a religious rite for driving [Satan](#) or evil spirits out of a possessed person, place or thing. In ancient times, many cultures had such rites. Today, the [Roman Catholic Church](#) still believes in diabolic possession and its priests still practice what is called "real exorcism," a 27-page ritual involving the use of holy water, incantations and various prayers, incense, relics or Christian symbols such as the cross, to drive out evil spirits. The Catholic Church has at least ten official exorcists in America today (Cuneo). The Archbishop of Calcutta, Henry Sebastian D'Souza, says he ordered a priest to perform an exorcism on Mother Teresa shortly before she died in 1997 because he thought she was being attacked by the devil.

Most [Protestant sects](#) also believe in satanic possession and exorcism. Michael Cuneo, a sociologist at Fordham University, claims "By conservative estimates, there are at least five or six hundred evangelical exorcism ministries in operation today, and quite possibly two or three times this many." Reverend Brian Connor, of South Carolina, says "dealing with animate evil is the single most overlooked component of the biblical mandate." * Connor was featured on NBC's "Dateline" program on exorcism (November 13, 2001). He and several friends spent an entire day trying to talk the demons out of the body of a 50-something man with a history of depression and aimlessness. The exorcists held Bibles, which they read from occasionally, and crosses. They huddled around their subject for hours, chanting prayers and ordering the demons to leave. The subject occasionally howled like an animal and grimaced at his benefactors. It was all great drama and eventually cathartic enough for the subject to vomit a little. Connor declared that he was spitting out Satan and that all the demons had left. A follow-up done two months later, however, found that the group had to repeat the exercise six more times. Now they were sure the demons were gone and the subject was sure he was fine and a new man.

Michael Cuneo watched a film of the exorcism and concluded that the group was suggesting to their subject how he should respond and that he saw no evidence of either demonic possession or of demons being exorcized. A psychiatrist was shown the same film and he announced that he couldn't evaluate what he observed as a psychiatrist but as a "believer" he thought that there might be something real going on involving demonic possession. When asked what he based his belief on, he replied tersely: faith. This man was a member of the American Psychiatric Association's Committee on Religion and Psychiatry.

As a layman, I found the behavior of the exorcists at least as interesting as that of the subject. Believing in demons is one thing; believing you have the ability to call up a supernatural being with infinite power and perfection who will cause demons to move on at your behest, seems certifiable. The whole coven of exorcists and exorcized are deluded. The former clearly felt great pride at their achievement and shared in a glorious victory over Satan. The latter was coddled and cuddled, hugged and loved, and eventually praised and rewarded with the good feelings of caring people when he released Satan and said "Jesus is Lord." There doesn't seem to be anything deeply complicated about what happened. The group convinced the subject he was possessed. They cued him as to how to behave and they rewarded him and themselves when he let the demon go. [Communal reinforcement](#) and [self-deception](#) will go a long way towards explaining how the group came to believe they could exorcize demons. The exorcists clearly enjoy their work and get great satisfaction out of "helping" people in this powerful way. I am sure that many evangelicals who saw the program are wondering where they can sign up to be exorcist's helpers.

traditional exorcisms

Exorcisms can be done on [inanimate objects or places](#) as well as on people. These need not be "real exorcisms" but can be "simple exorcisms" (usually thought of as baptizing the infant or "blessing" the house or place). Satan is everywhere, it seems, but the specialist in real exorcism is only needed when The Evil One starts acting up.

Most, if not all, cases of alleged demonic possession of humans probably involve either people with brain disorders ranging from epilepsy to schizophrenia and Tourette's syndrome, or people whose brains are more or less healthy but who are unfortunate enough to be sucked into playing a social role with very unpleasant consequences. In any case, the behaviors of the possessed resemble very closely the behaviors of those with electrochemical, neurochemical or other physical or emotional disorders.

A secularized version of exorcism is practiced by some therapists who specialize in unveiling and ridding their patients of "entities" which, the therapists believe, are the cause of the patient's troubles. [Entity release therapists](#) engage in this work even though there is about as much evidence for the "entities" as there is for the devils exorcised by Catholic priests and Protestant evangelicals. Many people, however, are very resistant to the idea that demonic possession is a myth, especially since they have seen or read fictional works such as *The Exorcist* or *the Amityville Horror*. They can't imagine how anyone could make such stuff up; yet, it would seem to take much *more* imagination to give credence to such tales.

Many people fear possession by demons, but the exorcists themselves can cause great damage.

Exorcism has caused a number of real-world tragedies over the years, including several deaths.

Pentecostal ministers in San Francisco pummeled a woman to death in 1995, as they tried to drive out her demons.

In 1997, a Korean Christian woman was stomped to death in Glendale, Calif., and in the Bronx section of New York City, a 5-year-old girl died after being forced to swallow a mixture containing ammonia and vinegar and having her mouth taped shut.

In 1998, a 17-year-old girl in Sayville, N.Y., was suffocated by her mother with a plastic bag, in an effort to destroy a demon inside her.*

In 2001, a 37-year old woman, Joanna Lee, was strangled to death in an exorcism by a Korean church minister working in New Zealand. The minister, Luke Lee, was found guilty of manslaughter.

An MSNBC program on [exorcists](#), featuring evangelicals [Tom Brown](#) and [Bob Larson](#), warned viewers not to try this at home because they might end up being arrested for botched exorcisms such as those mentioned above. The evangelicals' game is to bring groups of troubled people together and look for demons that are causing the trouble so they can exorcize them. Brown and Larson have never killed anyone, as far as we know, but whether they help or harm people was not possible to discern from the program, since the "reporters" did no background checks or follow-ups on the people exorcised.

The exorcists only prop is a Bible, which is held in one hand while they talk down the devil in very dramatic episodes worthy of Jerry Springer or Jenny Jones. The "possessed" could have been mentally ill, actors, mentally ill actors, drug addicts, mentally ill drug addicts, or they may have been possessed, as the exorcists claimed. All the participants shown being exorcized seem to have seen the movie "[The Exorcist](#)" or one of the sequels. They all fell into the role of husky voiced Satan speaking from the depths, who was featured in the film. The similarities in speech and behavior among the "possessed" has led some psychologists such as Nicholas Spanos to conclude that both "exorcist" and "possessed" are engaged in learned role-playing.

What was disappointing about the MSNBC program was that no effort was made to get anyone's opinion as to what was going on except for the opinion of the televangelists and their subjects. Wouldn't a serious journalist get a third opinion? Why should we take the word of interested parties like Brown

and Larson that their subjects really were possessed and that they really released [Satan](#) from all these bodies? These evangelical exorcists might be [self-deceived](#) and be guilty of [confirmation bias](#). Even if their intentions are good, they are most probably deluded and certainly causing harm to those they exorcize who should be under psychiatric care.

See related entries on [ghosts](#), [haunted houses](#), [hypnosis](#), [mesmerism](#) and [satan](#).

further reading

- [A Kinder, Gentler Satan](#) by D. Trull
- [Esophagus Exorcism!](#)
- ["Woman Admits Guilt in Exorcism Death"](#)
- [Spirits, Witches, & Science: Why The Rise Of Science Encouraged Belief In The Supernatural In 17th-Century England](#) by Richard Olson
- [The Haunted Boy: the Facts Behind the Story that Inspired "The Exorcist"](#) by Mark Opsasnick
- [More on the background to "The Exorcist"](#)

[Cuneo, Michael W. *American Exorcism: Expelling Demons in the Land of Plenty* \(Doubleday, 2001\).](#)

[Gold, Mark S. *The Good News About Depression : Cures and Treatments in the New Age of Psychiatry* \(New York: Bantam Doubleday Dell, 1995\).](#) **This book does not deal with exorcism but it has a great deal of material on physical disorders whose symptoms mimic mental illness, as well as material on symptoms of brain disorders including schizophrenia and hypermania, as well as depression. Many of these physical illnesses have been, and still are, mistaken for demonic possession by the ignorant and superstitious.**

[Singer, Margaret Thaler and Janja Lalich. *Crazy Therapies* \(San Francisco: Jossey-Bass, Inc., 1996\). \[Review\]\(#\).](#)

[Spanos, Nicholas P. *Multiple Identities and False Memories: A Sociocognitive Perspective* \(Washington, D.C.: American Psychological Association, 1996\).](#)



[evil eye](#)

[Eye Movement Desensitization Reprocessing](#)



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Santa Claus

Santa Claus is one of the most famous IFOs (identified flying objects) in history. The hirsute gift giver with the levitating reindeer has had more sightings than all [UFO](#), [Bigfoot](#), and [Virgin Mary sightings](#) combined. The innocent and pure witnesses to the jolly one decked out in sartorial crimson flailing away at his flying reindeer are legion. Who can mistrust a child, much less billions of children? Surely these witnesses are reliable. There is no proof that they are suffering from any mental derangement. They have no motive for lying. The only plausible explanation for these sightings is that they are genuine. There is no reason to think that all these witnesses are [confabulating](#). If there is nothing to this belief, then why do so many people believe it? There is no way this could be an example of [communal reinforcement](#) of a false idea or delusion. This must be a [genuine vision](#).

Cynical skeptics are wont to note that the belief in the Christmas gift giver requires acceptance of the hypothesis that in a single evening the infrequent flyer visits all the homes in America and the homes of Americans everywhere else on Earth. Even if the speedy one spent a single second at each home and took no time to travel between homes, it would take him several years to complete his rounds. Obviously, a [miracle](#) happens every Christmas! That is the only logical explanation for flying reindeer traveling at [takionic](#) speed carrying hundreds of thousands of pounds of weightless presents. That is the only logical explanation. [What else could it be?](#)

further reading

[reader comments](#)

Carl Sagan, "UFO's: The Extraterrestrial and Other Hypotheses," in *UFO's: A Scientific Debate*, ed. Carl Sagan and Thornton Page (New York: Cornell University Press, 1972), p. 266.

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Mass Media Bunk

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Mass Media Bunk

21

March 23, 2003. *Parade* magazine, the Sunday supplement that used to feature articles by the likes of Carl Sagan but which now favors articles on natural healing and complementary medicine, features a cover story with the teaser "Can Prayer Really Heal?" It is described as a "report" by Dianne Hales, an author of several books on health. The *Parade* cover leaves open the nature of this report: "In the last 10 years, hundreds of scientific studies--at some of the nation's top universities--have probed a link between health and religious faith. The data may surprise you." But the article itself, which begins on page 4, has a more suggestive, even if misleading, title: "Why Prayer *Could* Be Good Medicine [my emphasis]." Note the weasel word "could." The teaser reads "New research exploring the connection between biology and spiritual practice--once derided as scientific heresy--*may* offer insight into how the body heals [my emphasis]."

My main reason for calling this article bunk is not, however, because the author weasels. No. The main problem with this article is that is biased and selective in what it presents. You don't need to do any studies at all to know that prayer *might* be good medicine. And if the best that hundreds of scientific studies can show is that new research *may* offer new insight into how the body heals, then this article is clearly overhyped.

The article also fails to clarify what is meant by prayer. Did the researchers in the hundreds of studies define prayer? Did they all use the term to mean the same thing? She notes early on in her article that a particular man and his family prayed for his recovery from a heart attack and the man believes that "God answered those prayers." We are to infer from this, I suppose, that prayer is a request to God. This seems reasonable since she later distinguishes between petitionary prayer (for oneself) and intercessory prayer (for others). But what about those who don't believe in an anthropomorphic god who listens to requests and grants some but not others? I'm not talking about atheists, either. Furthermore, she mentions meditation studies in her article. But meditation is not prayer, at least not prayer that involves making requests of a god. Should studies that involve meditation be clearly separated from those involving prayer?

I would like to say that I have nothing against prayer. I used to pray in my younger days. I prayed to give thanks for what I thought were my blessings. I prayed to God to do things for me and for others. I even prayed for general things like peace and good will. I know that prayer can be beneficial. It can make one feel good, especially in situations where things are really not in your control. I also think that those who pray to bring about good things to themselves, their loved ones, or total strangers are affecting their attitudes in a good way. The benefits of a good attitude are tangible and not to be scoffed at. I have no doubt that prayer or meditation can be an integral part of some people's daily health regime.

But I do have problems with trying to measure something like the effect of prayer on healing. I also have problems with writers who claim to be giving a report on an issue when they don't tell the whole truth and nothing but the truth.

The article begins very strangely. It starts off in common fashion with an inspirational story about a man, his family, and how he thinks prayer cured him of a serious heart condition. Then Hales takes a strange twist by claiming that researchers at the Geisinger Medical Center in Danville, Pa., are going to monitor this man "to see whether his faith and prayers do indeed have a measurable impact on his long-term recovery." If this is an indication of what the "hundreds of studies" are like that have been done on the healing power of prayer, then any intelligent person should stop reading the article after this first paragraph. Anyone who thinks you will learn anything important about the relationship of faith and prayers to health recovery by studying one man over a period of time doesn't think. If this man dies of a heart attack tomorrow, what would that prove? Nothing. If he lives to be one hundred, what would that prove? Nothing. No scientist worthy of the name would monitor a single individual in hopes of learning whether faith and prayers have a measurable effect. I assume that the people at Geisinger have set up some sort of meaningful controls for their study and that there will be hundreds of individuals in the study, not just this one heart patient. But Hales gives no indication that this is the case or that such details might be important to the issue she is writing about.

She just tells us that this study--whatever it might actually consist of--"represents a new frontier for medical research." Let's hope that the researchers are a little clearer about what they are studying than Hales is.

Hales mentions that "investigators at Johns Hopkins are studying a group of women with breast cancer who say a meditative prayer twice daily." She doesn't bother to define "meditative prayer." Nor does she mention anywhere in her article that one of the leading researchers on prayer and healing died of a rare form of brain cancer while conducting a study on prayer and that particular rare form of brain cancer.* It is hard to imagine anyone having more prayers said for her by more people around the world than Elisabeth Targ had said for her. But not only did the prayers not save her life, they have not been able to save her reputation, either. Her famous study on prayer and AIDS patients, published in the *Western Journal of Medicine* in 1998, has come under fire for [not being what it claimed to be](#) and for committing the [Texas sharpshooter's fallacy](#). Victor Stenger comments:

Targ's paper is not the only questionable study on the efficacy of prayer that has been published by medical journals. The editors and referees of these journals have done a great disservice to both science and society by allowing such highly flawed papers to be published. I have previously commented about the low statistical significance threshold of these journals (p-value of 0.05) and how it is inappropriate for extraordinary claims (*Skeptical Briefs*, March 2001). This policy has given a false scientific credibility to the assertion that prayer or other spiritual techniques work miracles, and several best selling books have appeared that exploit that theme. Telling people what they want to hear, these authors have made millions.

One of the people who has made millions by claiming prayer heals is Larry Dossey, who is mentioned favorably by Hales. No mention is made of his critics such as [Vic Stenger](#) or [Robert Baker](#). Only one skeptic is mentioned by Hales, John Chibnall, who is quoted as saying that "the premise behind distant healing isn't scientific." Hales makes no effort to explain what that premise might be or why Chibnall, a psychologist at St. Louis University, might think it isn't scientific.

Hales claims that "dozens of studies have shown that individuals who pray regularly and attend religious services stay healthier and live longer than those who rarely or never do--*even when age, health, habits, demographics and other factors are considered.*" I would like to know the name of just one such study. I have seen studies that have shown, for example, that people of faith who frequently attend religious services have a significantly lower mortality rate than those who don't. But I have never heard of such a study that found this result when health, habits, and other factors were considered. The Duke University study that Hales mentions is briefly evaluated in my article on [prayer](#). My view is that Dr. Koenig, who directed the study, may well have found a causal connection between being healthy and attending religious services, but the evidence doesn't demonstrate that spirituality causes good health. In any case, there is a big difference between studying the effects of different lifestyles on health and studying the healing power of prayer. The two may be related but the relationship is certainly not self-evident.

Here is a summary of some of the studies mentioned on the [Parade](#) web site:

A nine-year study of the mortality rate among 21,000 adults found that those who attended religious services more than once a week lived up to seven years longer than those who did not.

In a study of 108 women with gynecological cancers, researchers at the University of Michigan discovered that 93% said religion bolstered their hopes for treatment.

Researchers at the Institute of Gerontology at the University of Michigan, studying self-esteem in seniors, found that religious faith was the most important factor linked to feelings of self-worth. The study of 1005 seniors over age 65, who did not live in nursing homes, found that those with low self-esteem tended to be nonreligious.

A review of more than 80 studies on the link between religion and depression found that people who are not involved in organized religion are 20 to 60% more likely to experience a major depression.

These are interesting results but what do they have to do with the healing power of prayer? The studies Hales mentions are of the same type. However, having hope or good self-esteem, or feeling good are not what we usually mean by *healing*.

On-line, *Parade* listed the following links, presumably so the reader could get better informed:

[Center for the Study of Religion/Spirituality and Health](#)

Located at Duke University, the center is leading research into religion's effects on health. Find out about speaking engagements by the center's scientists and read about the center's past and present research.

[International Center for the Integration of Health and Spirituality \(ICIHS\)](#)

Founded by the late Dr. David Larson, a pioneer in the study of spirituality and health, the ICIHS coordinates research efforts among doctors and other investigators. The center's site offers research summaries on a vast number of health topics.

[Research News & Opportunities in Science & Theology](#)

Contributors to this independent monthly newspaper include many of the top names in the fields of science, medicine and theology. The journal's site offers several free articles each month.

[John Templeton Foundation](#)

Through the foundation that bears his name, retired Wall Street tycoon John Templeton is a major funder of research into the nexus of spirituality and science. Learn more about the foundation's many programs and awards.

It is not surprising that none of these links offer anything skeptical about the studies of prayer and healing. But, if the reader wishes to see the other side, read my article on [prayer](#) and the articles I link to there, which I will post here:

- [Some Thoughts about Faith Healing](#) Stephen Barrett, M.D.
- [The Facts About Faith Healing](#) by George Nava True II
- [Distant Healing and Elisabeth Targ](#) Martin Gardner
- [The Power of Prayer](#) Nicholas Humphrey
- [Reality Check The Science of Prayer](#) and [Evidence Doesn't Support Health/Religion Claims](#) by Victor J. Stenger
- [If Looks Could Kill and Words Could Heal](#) by Robert Baker
- [Gary Posner's review](#) of Larry Dossey's *Healing Words: The Power of Prayer and the Practice of Medicine* (Harper, 1993)
- ["Is there scientific evidence that intercessory prayer speeds medical recovery?"](#) A Debate Transcript of the March 13th, 2001, Debate Between William Harris, PhD, Saint Luke's Hospital, Kansas City, MO, and Irwin Tesson, PhD, Purdue University, West Lafayette, IN
- [God in the CCU? A critique of the San Francisco hospital study on intercessory prayer and healing](#) Gary P. Posner, M.D.
- [Another Controversial Effort to Establish the Medical Efficacy of Intercessory Prayer](#) by Gary Posner, MD
- [Studies on Prayer and Healing Flawed](#) - Infidels.org
- [Is Prayer Clinically Effective?](#) David G. Myers

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 [the Skeptic's Refuge](#)

[More bunk](#) 



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confabulation

A confabulation is a *fantasy* that has unconsciously replaced *fact* in memory. A confabulation may be based partly on fact or be a complete construction of the imagination.

The term is often used to describe the "memories" of people claiming to have been abducted by aliens, as well as "false memories" induced by therapists or interviewers, memories that often involve bizarre notions of satanic ritualistic sexual abuse of children.

See related entries on [alien abductions](#) and [memory](#).

further reading

["The Eyes that Spoke," by Martin Kottmeyer](#) A case history of confabulation.

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 [communal
reinforcement](#)

[confirmation bias](#) 

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[New parapsychology
center open in
Durham](#)

parapsychology

"...the founders of parapsychology were mostly people who, having lost their religious faith, were searching for a scientific basis for believing in the meaningfulness of life and the possibility of life after death..." [\(David G. Myers\)](#)

The *search* for [paranormal](#) phenomena, such as [ESP](#) and [psychokinesis](#). Most sciences try to explain observable phenomena. Parapsychologists try to observe unexplainable phenomena.

Scientific methodology in this field dates from at least 1882 at the founding of the Society for Psychical Research in London, which continues to flourish. Its initial members sought to distinguish psychic phenomena from [spiritism](#), and to investigate [mediums](#) and their activities. They studied [automatic writing](#), [levitation](#), and reports of [ectoplasmic](#) and [poltergeist](#) activity. In America, Joseph Banks Rhine (1895-1980) conducted [psi](#) experiments at Duke University in the 1930s. His work continues at the [Rhine Research Center](#) and at various labs across the country where experiments have concentrated principally on [extrasensory perception \(ESP\)](#), [psychokinesis](#), [remote viewing](#), and [astral projection](#). There are at least half a dozen peer-reviewed journals of parapsychology. However, research in this area has been characterized by deception, fraud, and incompetence in setting up properly controlled experiments and evaluating statistical data (Alcock 1990; Gardner 1981; Gordon 1987; Hansel 1989; Hines 1990; Hyman 1989; Park 2000; Randi 1982).

Americans [Charles Tart](#) and [Raymond Moody](#), among many others continue to expand upon Rhine's work. [The CIA and the U.S. military have hired parapsychologists](#) and studied alleged psychics such as [Ingo Swann](#).

Parapsychological research continues at many places, including [Maimonides Hospital Dream Laboratory in Brooklyn, New York](#); the [University of Nevada at Las Vegas](#); the [Princeton Engineering Anomalies Research](#); and the University of Edinburgh, whose psychology department has the Koestler Chair of Parapsychology, and publishes the *European Journal of Parapsychology*. Parapsychologists have [many other publications](#), as well.

Psi researchers often find evidence for psi, but a yearlong study done by the United States Air Force Research Laboratories (the VERITAC study, named after the computer used) was unable to verify the existence of ESP. A careful and properly designed study by Richard C. Sprinthall and Barry S. Lubetkin published in the *Journal of Psychology* (vol. 60, pp. 313-18) found no

evidence of ESP. Some parapsychologists, such as [Susan Blackmore](#), have abandoned the search for psi after years of failing to find any significant support for paranormal phenomena (Blackmore 1987, [2000](#)).

Despite the fact that psychologists have been in the forefront of paranormal studies, a study of 1,100 college professors in the United States found that only 34% of psychologists believe that ESP is either an established fact or a likely possibility. Comparable figures for other disciplines are much higher: natural scientists (55%), social scientists [excluding psychologists] (66%) and for academics in the arts, humanities, and education (77%). Of the psychologists surveyed, 34% believe psi is an impossibility, while only 2% of the other respondents maintained this position (Wagner and Monnet 1979).

Parapsychologists who claim to have found positive results often systematically ignore or rationalize their own studies if they don't support psi. Rhine discarded data that didn't support his beliefs, claiming subjects were intentionally getting answers wrong ([psi-missing](#)). Many, if not most, psi researchers allow [optional starting and optional stopping](#). Most psi researchers limit their research to investigating parlor tricks (guessing the number or suit of a playing card, or "guess what [Zener card](#) I am looking at" or "try to influence this random number generator with your thoughts"). Any statistical strangeness is attributed to paranormal events.

From the standpoint of physics there seems to be a major problem with the assumption and alleged discovery by some parapsychologists that spatial distance is irrelevant to psi. Each of the four known forces in nature weakens with distance. Thus, as Einstein pointed out in a letter to Dr. Jan Ehrenwald, "This suggests...a very strong indication that a non-recognized source of systematic errors may have been involved [in ESP experiments]" (Gardner 1981, 153). The skeptic would rather believe that ESP doesn't exist than that there is some very strong and powerful force that is undetectable even though we're able to detect what must be a much weaker force, gravity, without any trouble at all.

Recently, the work of Charles Honorton and his [ganzfeld](#) experiments have been put forth as examples of proper scientific studies whose integrity cannot be doubted. Maybe. But the data from these experiments illustrate another problem with much research in parapsychology: *correlations don't establish causality*. Finding a correlation which is not what would be predicted by chance does not establish a causal event, much less that if it is a causal event it must be a paranormal event. Furthermore, even if there is a causal event, the correlation itself isn't of much use in determining what that event consists of. What you think is cause may be the effect. Or, there may be some third, unknown, factor which is causing the effect observed. Or, the correlation may be due to chance, even if it is statistically unlikely in a certain sense. The apparent chance correlation may actually be statistically likely over the long run. So, the fact that a group of test subjects identifies correctly which of four

pictures someone else has seen at a .36 rate when .25 is what chance predicts doesn't establish a causal event. Nor does it, of course, establish ESP as the cause, if there is a cause. The event may well be causal, but the real cause may be something quite ordinary, such as fraud, unintentional cues, or some tendency to bias in the subject matters selected by chance. If other researchers can duplicate the results with more and more rigorous tests, then it will become highly probable that causal events are being measured. Then, the problem will be to find the cause. Maybe it will turn out to be a psychic force hitherto undetected by physics, but this seems unlikely.

See related entries on [astral projection](#), [auras](#), [Edgar Cayce](#), [clairaudience](#), [clairvoyance](#), [confirmation bias](#), [dermo-optical perception](#), [dreams](#), [extraordinary human functions](#), [ganzfeld experiment](#), [mentalists](#), [Raymond Moody](#), [optional starting and stopping](#), [paranormal](#), [precognition](#), [psi](#), [psi-missing](#), [psychic](#), [psychic photography](#), [psychic surgery](#), [psychokinesis](#), [remote viewing](#), [retrocognition](#), [retrospective falsification](#), [séance](#), [shotgunning](#), [Charles Tart](#), [telepathy](#), and [James Van Praagh](#).

further reading

[reader comments \(psi\)](#)

- "The Elusive Open Mind: Ten Years of Negative Research in Parapsychology," Susan Blackmore in *The Skeptical Inquirer* 1987, 11, 244-255.
- [Twenty things to consider when regarding paranormal phenomenon](#) by James Randi
- [The Evidence for Psychic Functioning: Claims vs. Reality](#) by Ray Hyman
- [KOESTLER PARAPSYCHOLOGY UNIT](#) (interesting history of the origins of terms such as *psi*, *ESP*, etc.)
- [What is parapsychology?](#)
- [The Research With B.D. and the Legacy of Magical Ignorance](#) by George P. Hansen
- [Deception by Subjects in Psi Research](#) by George P. Hansen

[Alcock, James E. *Science and Supernature: a Critical Appraisal of Parapsychology* \(Buffalo, N.Y.: Prometheus Books, 1990\).](#)

[Gardner, Martin. *Fads and Fallacies in the Name of Science* \(New York: Dover Publications, Inc., 1957\), ch. 25.](#)

[Gardner, Martin. *Science: Good, Bad and Bogus* \(Buffalo, N.Y.: Prometheus Books, 1981\), chs. 7, 13, 18, 19, 21, 27 and 31.](#)

[Gordon, Henry. *Extrasensory Deception: Esp, Psychics, Shirley MacLaine, Ghosts, Ufos* \(Buffalo, NY: Prometheus Books, 1987\).](#)

[Hansen, George P. *The Trickster and the Paranormal* \(Xlibris Corporation, 2001\).](#)

[Frazier, Kendrick. editor, *Science Confronts the Paranormal* \(Buffalo, N.Y.: Prometheus Books, 1986\).](#)

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[Hines, Terence. *Pseudoscience and the Paranormal* \(Buffalo, NY: Prometheus Books, 1990\).](#)

[Hyman, Ray. *The Elusive Quarry : a Scientific Appraisal of Psychological Research* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)

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[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books,1982\).](#)

[Stein, Gordon. editor, *The Encyclopedia of the Paranormal* \(Buffalo, N.Y.: Prometheus Books, 1996\).](#)

Wagner, M. W. & Monnet, M. "Attitudes Of College Professors Toward Extra-Sensory Perception," *Zetetic Scholar*, 5, 7 – 16, 1979

Search the Skeptic's Dictionary



curse

A curse is a prayer or invocation expressing a wish that harm, misfortune, injury, great evil, etc., be brought upon another person, place, thing, clan, nation, etc. People are also said to be cursed if harm comes to them regularly or in seeming disproportion to the rest of us.

Curses seem to have been a regular part of ancient cultures and may have been a way to frighten enemies and explain the apparent injustices of the world. There is no evidence that anyone has successfully invoked occult powers to do harm to others, but there is evidence that those who *believe* they have been cursed can be made miserable by exploiting that belief. Fear and the human tendency to [confirmation bias](#) and [selective thinking](#) can sometimes lead the believer to fulfill the curse.

Belief in curses may make it easier to explain why bad things often happen to good people: they are cursed because of some bad thing an ancestor did. A little bit of reflection, however, should reveal that this is not a very satisfactory explanation. Whether it is God or Nature doing the cursing, neither seems very just in punishing the children for the sins of their mothers or fathers.

The curse is a favorite literary theme in Greek mythology. Modern writers such as William Faulkner use the family curse theme to great effect. The Old Testament is a litany of curses. In the New Testament, even a fig tree gets cursed.

The curse is also a favorite theme of the mass media whenever something bad happens to one of the Fitzgerald/Kennedy (FK) clan. The [so-called "Kennedy curse"](#) is a media creation. The FK clan is no more cursed than any African family destroyed by slavery or any Jewish family destroyed by Nazism was cursed. The media would have us believe that the FK clan have suffered a disproportionate amount of harm. Their harm is certainly disproportionately public, but that is because the clan is rich and famous, not because they are cursed. Their harm has been disproportionately influential because some members of the clan have been extremely influential.

In their attempt to bolster the myth of the Kennedy curse, the media have included self-caused harms as "tragedies." Getting drunk and leaving a girl to drown is a tragedy for the girl's family, not the FK clan. Dying in a plane crash when you shouldn't be flying a plane, date rape, reckless behavior on a ski slope, having an affair with your babysitter, being arrested for possession of heroin, and dying of a drug overdose are not tragedies.* The womanizing, the Bay of Pigs fiasco, working for Joe McCarthy, and involving the United

States militarily in Vietnam were chosen behaviors. If there is a curse here it is the curse of too much money, power, and leisure time combined with a disposition for risk taking.

If one considers the size of the FK clan, their wealth, their extraordinary achievements and their propensity for taking risks, then their misfortunes do not seem disproportionate. The media would have us believe, however, that if a member of this clan dies in war, gets cancer or has a mental disorder, it's because they're cursed.* If they are cursed, then so are the millions of others who suffer the same fate.

If anyone in the family was cursed, it was Rose Fitzgerald Kennedy who lived to be 104.

See related entries on [the evil eye](#), [incantations](#), [the law of truly large numbers](#), [spells](#), and [zombies](#).

further reading

- [The curse of the Kennedy's - the odds of misfortune](#) by John Allen Poulos
- ["Kennedy curse claims one more"](#)
- [The Kennedys: A family cursed?](#) from the BBC June, 2002

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intuitive (noun) & intuitive healers

An intuitive is a person who claims to have [psychic](#) abilities. An *intuitive healer* is someone who allegedly can heal and teach others to heal without the bother of empirical medicine. Instead, they use "insight" to diagnose illness. *Intuitive healers are sometimes called medical intuitives or psychic healers.* Intuitives are sometimes called *sensitives*.

Some, like [Rachel Kohler](#), claim that their abilities allow them to make accurate diagnoses over the telephone. Some, like [Linda Salvin](#), prefer the radio or the Internet, for their healings.

Some, like [Judith Orloff](#), claim they can [diagnose mental illness intuitively](#). She calls her ability "[second sight](#)" and has written some books about it.

Some intuitives call their work "science" and name their chicanery after themselves, such as the [Barbara Brennan Healing Science](#). Barbara claims she can do [Astral Healing](#) psychic surgery on your [aura](#).

Some, like Dr. [Carolyn Myss](#) (she has a doctorate from [Greenwich University](#) in Intuition and Energy Medicine), have abandoned healing for less dangerous and more lucrative endeavors like giving lectures and workshops, and writing books. (Her web site says she's booked for the next two years.)

One thing intuitive healers seem to have in common--besides a nose for desperate disciples--is an implicit awareness of the role [confirmation bias](#), [communal reinforcement](#) and [wishful thinking](#) play in the construction of meaning and belief. Many "intuitives", no doubt, have an explicit understanding of the [placebo effect](#). But they and the people who follow them do not understand how easy it is to [deceive ourselves](#) about these things. They do not test their alleged abilities under clear and controlled conditions and their followers don't require this of them. What is worse, so-called intuitives seem to think they are able to use their intuition to understand such things as quantum mechanics and biochemistry. Others simply ignore science in favor of metaphysics. Some intuitive healers could be tested, since they claim to be able to diagnose real disorders such as cancer. Others could never be tested since they diagnose non-empirical causes such as [aura imbalance](#), [chi](#) blockage, or some sort of "[energy](#)" disharmony or misalignment.

See related entries on [acupuncture](#), [bioharmonics](#), ["alternative" health practices](#), [chi](#), [chakras](#), [crystals](#), [magnet therapy](#), [placebo effect](#), [reiki](#) and [therapeutic touch](#).

further reading

- [Why Bogus Therapies Often Seem to Work](#) by Barry L. Beyerstein
- [Bioenergetic Fields](#) by Victor J. Stenger
- [Quackwatch](#)

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[instrumental
transcommunication](#)

[invocation](#)



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The Sokal Hoax

But why did I do it? I confess that I'm an unabashed Old Leftist who never quite understood how deconstruction was supposed to help the working class. And I'm a stodgy old scientist who believes, naively, that there exists an external world, that there exist objective truths about that world, and that my job is to discover some of them. --[Allan Sokal](#)

In its 1996 Spring/Summer issue (pp. 217-252), *Social Text* journal published an article by Allan Sokal, Professor of Physics at New York University, entitled "[Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity.](#)" The article was a hoax submitted, [according to Sokal](#), to see "would a leading journal of cultural studies publish an article liberally salted with nonsense if (a) it sounded good and (b) it flattered the editors' ideological preconceptions?" It would. Needless to say, the editors of *Social Text* were not pleased.

Sokal claims that the editors, had they been scrupulous and intellectually competent, would have recognized from the first paragraph of his essay that it was a parody. The physicist says he was "troubled by an apparent decline in the standards of intellectual rigor in certain precincts of the American academic humanities." The hoax was his way of calling attention to this decline.

In his article, Sokal attacks "the dogma imposed by the long post-Enlightenment hegemony over the Western intellectual outlook" that there is an external world governed by laws of nature which we can understand imperfectly using the scientific method. He also claims that "physical 'reality' ... is at bottom a social and linguistic construct." Furthermore, he says,

Throughout the article, I employ scientific and mathematical concepts in ways that few scientists or mathematicians could possibly take seriously. For example, I suggest that the "morphogenetic field" -- a bizarre New Age idea due to Rupert Sheldrake -- constitutes a cutting-edge theory of quantum gravity. This connection is pure invention; even Sheldrake makes no such claim. I assert that Lacan's psychoanalytic speculations have been confirmed by recent work in quantum field theory. Even nonscientist readers might well wonder what in heavens' name quantum field theory has to do with psychoanalysis; certainly my article gives no reasoned argument to support such a link.

In sum, I intentionally wrote the article so that any competent physicist or mathematician (or undergraduate physics or math major) would realize that it is a spoof. Evidently the editors of Social Text felt comfortable publishing an article on quantum physics without bothering to consult anyone knowledgeable in the subject.

Such lax editing might be expected in a New Age magazine, where preposterous and unfounded claims about paranormal "energies" being validated by quantum mechanics are commonplace. But Sokal thinks we should expect more of a prestigious journal edited by distinguished scholars in the humanities. But why did he pick on this particular journal?

Sokal hoaxed *Social Text* for political reasons. Both are "leftist" politically, but Sokal considers the New Left to be guilty of "epistemic relativism." (Is this another hoax?) He seems particularly peeved that the New Left promotes the notion that reality is a social construction. Furthermore, the New Left has created "a self-perpetuating academic subculture that typically ignores (or disdains) reasoned criticism from the outside." So, apparently Sokal wanted to criticize the "epistemic relativism" and "social constructivism" of the New Left in a New Left journal but felt the only way they would let him do so would be if he pretended to share their ideology.

Many have pointed out the profound implications of this hoax. At the very least, articles should be reviewed by experts in the field covered by the article. Sources and references named in the article should be checked by the editors.

Above all, however, the Sokal hoax demonstrates how willing we are to be deceived about matters we believe strongly in. We are likely to be more critical of articles which attack our position than we are of those which we think supports it (Gilovich). This tendency to [confirmation bias](#) affects physicists as well as professors in the social sciences and the humanities.

See related entries on [communal reinforcement](#), [confirmation bias](#), [selective thinking](#), [self-deception](#), [subjective validation](#), and [wishful thinking](#).

further reading

- [The Sokal Incident](#) - Everything on the Internet relating to this hoax

[The Sokal Hoax : The Sham That Shook the Academy by The Editors of Lingua Franca](#)

[Gilovich, Thomas. *How We Know What Isn't So: The Fallibility of Human*](#)

[Reason in Everyday Life \(New York: The Free Press, 1993\).](#)

[Gross, Paul R. and Norman Levitt. *Higher Superstition: The Academic Left and Its Quarrels With Science.* \(Johns Hopkins University Press, 1997\).](#)

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[Slick 50](#)

[sorcery](#)



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thought field therapy

Thought field therapy (TFT) is a type of cognitive therapy dressed up in the garb of traditional Chinese medicine. It was developed in 1981 by [Dr. Roger Callahan](#), a cognitive psychologist. While treating a patient for water phobia, he asked her to think about water as he tapped her stomach. He says that the patient claimed she suddenly overcame her lifetime fear of water. He attributes the cure to his tapping, which he thinks unblocked "energy" in her stomach meridian.

TFT allegedly "gives immediate relief for post traumatic stress disorder (PTSD), addictions, phobias, fears, and anxieties by directly treating the blockage in the energy flow created by a disturbing thought pattern. It virtually eliminates any negative feeling previously associated with a thought."[*](#)

The theory behind TFT is that negative emotions cause energy blockage and if the energy is unblocked then the fears will disappear. Tapping acupuncture points is thought to be the means of unblocking the energy. Allegedly, it only takes [five to six minutes](#) to elicit a cure. Dr. Callahan claims an 85% success rate. He even does cures over the phone using "Voice Technology" on [infants and animals](#); by analyzing the voice he claims he can determine what points on the body the patient should tap for treatment.

For [\\$145](#) and one day of your time, Dr. Callahan's staff will train you to successfully treat people suffering from post traumatic stress disorder, trauma, phobias and addictions. The training is restricted to "licensed or certified mental health, medical professionals, social workers, massage therapists, acupuncturists, or homeopathic physicians actively employed in their field."

For [\\$280](#) and two days of your time, Dr. Callahan's staff will train you to also successfully treat people with obsessive compulsive disorder, depression, and panic attacks.

Dr. Callahan has a theory that thoughts have fields and these fields have an effect on the body. He also claims that there is a one-to-one correspondence (isomorphism) between perturbations caused by negative emotions and specific energy meridian points on the body. He claims to know the exact algorithm (where to tap) for each kind of perturbation. How he knows any of this is not clear, though it appears he made up the theory to fit with ancient Chinese beliefs in [chi](#) and meridians, and he seems to have figured out the algorithms by trial and error. He seems not to have done any controlled studies to rule out [confirmation bias](#) and [self-deception](#). He relies on

anecdotes to support his beliefs and hence he cannot be sure that the effects he observes are not due to standard cognitive therapy techniques (including having the patient think about what frightens him or her) rather than to the tapping on particular pressure points.

See **related entries** on [acupuncture](#), [chi](#), [EMDR](#), [Occam's razor](#) and [yin and yang](#).

further reading

[reader comments](#)

- "[Can We Really Tap Our Problems Away? A Critical Analysis of Thought Field Therapy](#)" by Brandon A. Gaudiano and James D. Herbert, *Skeptical Inquirer* July/Aug 2000
- [Debunking Thought Field Therapy](#) - Brandon Gaudiano
- [APA no longer approves CE sponsorship for Thought Field Therapy](#)
- [Arizona board sanctions psychologist for use of Thought Field Therapy](#)
- [Quackwatch](#)

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[therapeutic touch](#)

[thoughtography](#)



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reader comments:

confirmation bias

3 Dec 1998

Very well. Are you actively seeking data and information that would tend to contradict Skepticism?

Robert

reply: Glad you asked, Robert. Would you ask me if I am seeking information that would tend to contradict bananas? No. Why? Because such a question would not make sense. Why? Because bananas are things, not beliefs. Now, I know that skepticism is not a thing, but it is not a belief either. If you are truly seeking to discover how I approach Skepticism, you should read my [FAQ](#) and my entry on [Skepticism](#).

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ectoplasm

Ectoplasm is the stuff oozing from ghosts/spirits which makes it possible for them to materialize and perform feats of [telekinesis](#). For some strange reason, ectoplasm is often not visible to the naked eye but appears in [photographs](#). This may be due to the fact that most cameras are more sensitive to the spirit world than most people. Or, it may be due to a number of physical factors having to do with reflection, refraction, film processing, and other natural phenomena usually ignored by the truly psychic.

In the heyday of [séances](#)--the 19th and early 20th centuries--ectoplasm was often produced by the [medium](#). James Randi claims that in such cases what was produced was painted cheesecloth and other rather usual physical substances. In short, he thinks the psychics cheated. Of course, Randi cannot prove that every psychic cheated every time; therefore, some psychics may not have cheated. This *possibility* is enough to warrant belief in the reality of ectoplasm for those suffering from [true believer syndrome](#). A true skeptic, however, would have to conclude that the probability of some ectoplasm being real material from the spirit world is near zero.

See related entries on [automatic writing](#), [channeling](#), [electronic voice phenomenon](#), [medium](#), [ouija board](#), [séance](#), and [spiritualism](#).

further reading

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

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Last updated 12/30/01



[ear candling](#)

[extraordinary human functions \(EHF\)](#)



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[intuitives](#)

[IQ and race](#) 

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invocation

An invocation is a special set of words used to call on some [spirit](#) or [occult](#) power for protection or assistance.

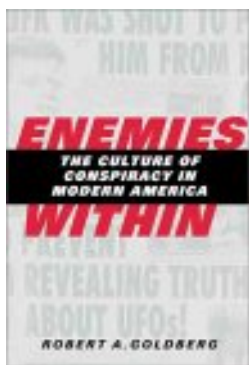
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[Paranoia paradise -](#)

By Chris Horrie BBC News Online What makes a good conspiracy theory? What is it about some stories that, however unlikely, convince people that they are true?



[Enemies Within: The Culture of Conspiracy in Modern America by Robert Alan Goldberg](#)

[Conspiracy theories say Israel did it Muslims blame Sharon, Mossad By James Cox USA TODAY](#)

[William "Bill" Cooper shot and killed](#)

Illuminati, The New World Order & Paranoid Conspiracy Theorists (PCTs)



What is at stake is more than one small country [Kuwait], it is a big idea - a new world order, where diverse nations are drawn together in common cause to achieve the universal aspirations of mankind: peace and security, freedom, and the rule of law. Such is a world worthy of our struggle, and worthy of our children's future. --President George Bush in his state of the union address, January 16, 1991

The Illuminati was a secret society in Bavaria in the late 18th century. They had a political agenda that included republicanism and abolition of monarchies, which they tried to institute by means of "subterfuge, secrecy, and conspiracy," including the infiltration of other organizations.* They fancied themselves to be "enlightened" but they had little success and were destroyed within fifteen years of their origin (Pipes 1997).

Paranoid conspiracy theorists (PCTs) believe the Illuminati cabal still exists, either in its original form or as a paradigm for later cabals. Many PCTs believe "that large Jewish banking families have been orchestrating various political revolutions and machinations throughout Europe and America since the late eighteenth century, with the ultimate aim of bringing about a satanic New World Order."* What George Bush was talking about in his state of the union address in 1991 was no less than the establishment of a single world government with the anti-Christ (whom some say is [Bill Clinton](#), but could be [Pat Robertson](#)) at its head.

In the paranoid mind, the Illuminati succeeded in their goals, and have now infiltrated every government and every aspect of society. They are responsible for every evil and every unjust act that ever occurs anywhere; the fact that absolutely no evidence of their existence can be found only serves to make them stronger and more frightening. They are the demon in the closet, and will probably never disappear from the paranoid fantasy world of right-wing conspiracy theorists.*

--New England Skeptical Society

Although there are two main "sects" of PCTs, the militant Christian

[The oil behind Bush and Son's campaigns](#)
By [Ranjit Devraj](#)

[Taliban Abuses Ignored for Oil Money, Drug War](#)

[Anthrax attacks 'work of neo-Nazis'](#)

fundamentalist branch and the UFO/alien branch, and although they each think the other is evil or nuts, their paranoia has the same focus: the end is near.

the Illuminati and the anti-Christ

The Illuminati are hastening the coming of the anti-Christ and the end of the world.

For those of us who still accept the Bible as God's revealed will to man, it's a matter of great concern to see the increasing propaganda for, and emergence of, a New World Order.... both Old and New Testaments warned us that the culmination of history would be marked by the reunion of the nations of the old Roman Empire in Europe; the restoration of the state of Israel (and the increasing hostility of all nations toward her); the implementation of a one-world governmental system; the imposition of a world-wide cashless monetary system; the development of a syncretistic [sic] world religion, based upon man, and presided over by a false prophet; the rise to power of a benign world dictator, who (once firmly in control) would eliminate individual freedoms, demonstrate iron-willed ferocity and cruelty, and make himself the object of worship; and world-wide apostasy [sic], coupled with active persecution and execution of believing Jews and Christians. --[Jay Whitley](#)

Mr. Whitley is prepared for Armageddon, however. He sells Emergency Dehydrated Food Kits.

the major players

Here is a typical set of the PCT's notions, extolled in a review of an author who claims he has exposed the Illuminati:

Who really controls world events from behind-the-scene? Years of extensive research and investigation have gone into this massively documented work [*Bloodlines of the Illuminati*]. In almost 600 pages, Fritz Springmeier discloses mind-boggling facts and never before revealed truths about the top Illuminati dynasties. Discover the amazing role these bloodlines have played--and are now wielding--in human history, with family names such as Astor, DuPont, Kennedy, Onassis, Rockefeller, Rothschild, Russell, Van Duyn, and Krupp. You'll also learn of the secretive, Chinese Li family, which operates with impunity in the

U.S.A. and around the world. Along the way you'll find out why President John F. Kennedy and actress Grace Kelly were killed; who created the United Nations; who controls the two major U.S. political parties; how the Rothschilds invented and control modern-day Israel; who secretly founded false religions such as the Jehovah Witnesses; and much, much more. A literal encyclopedia of rare, unbelievable information!*

The "information" is certainly unbelievable, but it is not rare enough. Another PCT "sect" holds that it is the aliens who rule the Illuminati who rule the world, etc.

David Icke

David Icke, another pundit of the Illuminati, gets messages from alien "Illuminati-reptilians" who explain to him such things as the Gregorian calendar.

The whole senario [sic] was planned centuries ago because the reptilians, operating from the lower fourth dimension, and indeed whatever force controls them, have a very different version of "time" than we have, hence they can see and plan down the three-dimensional "time"-line in a way that those in three-dimensional form cannot.*

Icke fancies himself "The most controversial author and speaker in the world."* For him, the origin of the Illuminati is extraterrestrial. He knows this because he is contacted regularly with messages from beyond by the alien lizards. He puts these messages into books (at least five, so far).

There was a time when a man who claimed to be in contact with alien reptiles would have been shunned by the world. In today's open society, such a man is as likely to become a cult hero, guest lecturer at universities, or an author featured on talk shows, as he is to be committed to an asylum.

Jim Keith

Another expositor on these hidden agendas and worldwide conspiracies is [Jim Keith](#), who [died on September 7, 1999, during surgery](#) to repair a leg he injured at the [Burning Man Festival](#). Keith, a former executive Scientologist and author of nine conspiracy books (including *Saucers of the Illuminati*) could see things the rest of us don't. Was this because he was better at seeing or because his imagination ran wild? He watches a Coke ad and sees fellatio and anal penetration.* You can imagine what he sees or hears when he gives his attention to [world history](#).

Ken Adachi

[Ken Adachi](#) has a fine conspiracy page. He leaves no event unaccounted for as part of the plot to take over the world and hasten the Apocalypse. The Illuminati, however, is only one aspect of the occult cabal. He has transmogrified the New World Order into a cabal itself. According to Mr. Adachi

An extremely powerful civilian dominated cabal, the New World Order, includes [Majesty Twelve \[MJ-12\]](#), [The Illuminati](#), [Order of the Quest](#), [The Bilderberg Group](#), [The Trilateral Commission](#), [The Executive Committee of The Council on Foreign Relations](#), [The PI-40 Committee](#), [The Jason Group](#), [The Club of Rome](#), [The Group](#), [The Royal Institute of International Affairs](#), [The Open Friendly Secret Society](#), [The Rosicrucians](#), [The Brotherhood of the Dragon \(or Snake\)](#), [The Russell Trust](#), [The Black Families \(of Europe\)](#), [Skull & Bones](#), [the Scroll & Key](#), [The Knights of Malta](#), the Illuminati arm of [The Freemasons](#), and many, many other secretive groups.

What is most amusing about Mr. Adachi's page is that even though the end is near, he still asks us to please support his sponsor, an organization that can help with debt consolidation or a home loan. What is not so amusing is his identification of the [Freemasons](#) as a subversive cabal. This idea is popular among PCTs, especially with those on the religious right like [Pat Robertson](#), who are also prone to be [anti-Semitic](#).

Myron Fagan

Mr. Adachi may have a fine conspiracy WWW page but he seems to have borrowed everything from [Mr. Fagan](#), who undertook to explain all of world history as a plot of the Illuminati to establish the New World Order. Waterloo, Diamond Jim Brady, the French Revolution, any war you care to name, homosexuals in the State Department, JFK, the United Nations, the ACLU, Jewish bankers, the Communist conspiracy to control Hollywood and make films that would hasten the arrival of the New World Order, etc. ad nauseam. Fagan's audiotape, "The Illuminati," is available [online](#).

Fagan, born ca. 1888, was a playwright, director, producer, editor and public relations director for Charles Hughes, Republican candidate for president in 1916. In 1930, Fagan came to Hollywood and worked as a writer and director. In 1945, he says he saw some secret documents which led him to write *Red Rainbow* and *Thieves Paradise*. The former portrays Roosevelt, Stalin and others at Malta plotting to deliver the Balkans, Eastern Europe and

Berlin to Stalin. The latter portrays the same group plotting to create the United Nations as a Communist front for one world government. Until his death, Fagan relentlessly uncovered plots for almost every historical event of any note. Fagan is the archetype for the PCT.

Milton William "Bill" Cooper

[Cooper](#) was a leader of the Arizona militia movement until his death in a shootout with a sheriff's deputy. Cooper opened fire on the deputy when he tried to issue a warrant for assaulting his neighbor. Cooper wrote [*The Secret Government: a Covenant with Death - The Origin, Identity, and Purpose of MJ-12*](#), a paper given in Las Vegas at a [MUFON](#) meeting in 1989 focusing essentially on his belief of a cover-up of an alien crash at [Roswell](#). He also wrote *Secret Societies/ New World Order*. He claims that he got his information "directly from, or as a result of my own research into the TOP SECRET/MAJIC material WHICH I SAW AND READ between the years 1970 and 1973 as a member of the Intelligence Briefing Team of the Commander in Chief of the Pacific Fleet." (PCTs seem to like to use CAPS for EMPHASIS.) Cooper's veracity about his career in the Navy and his access to secret documents has been questioned publicly on alt.alien.visitor, as have [other aspects](#) of his [personality](#). Cooper ran [williamcooper.com](#), a site which promotes his many rants, including an [autobiographical page](#) that might be of interest to certain mental health professionals.

Cooper's "investigations" uncover the usual conspiracies, although he also includes some of the new ones such as the conspiracy to use AIDS to thin out the population of blacks, Hispanics and homosexuals, a notion he put forth in a book called *Behold a Pale Horse*. What Cooper lacks in hard evidence he oversupplies in detail and imagination.*

Robert Gaylon Ross, Sr.

[Ross](#) is owner of Ross International Enterprises (RIE) and is the author of nine books in progress. RIE is "a private company chartered to do anything that is legal, ethical and moral, anywhere in the world." Ross started RIE when he couldn't find a publisher for his manuscript, *Who's Who of the Elite*, an expose of the elite. Says Ross, after you visit his site

you will have been exposed to the REAL TRUTH about the conspiracy behind the Bilderbergs; Council on Foreign Relations; Trilateral Commission; Skull & Bones Society; Bohemian Grove and Bohemian Club; the CIA's involvement in trauma based mind control, drug smuggling and money laundering; where are the Wealthiest in the World; who really owns the Federal Reserve System; and the more accurate theories found in "Logical Physics".

Ross's unique twist is to relate "[alternative physics](#)" to the world of conspiracies and to offer for sale a [rifle with scope](#) from his conspiracy pages. If only he had had tales of UFOs in his books, he would have no trouble getting them published with [Illuminet Press](#), a publishing house devoted to nothing but conspiracy books involving aliens of some sort.

Why?

To enter the world of the PCTs is to enter Bedlam. It would be pointless here to examine, much less attempt to refute, the delusions of people who think they have been turned into assassins by mind-control techniques so that they can carry out the will of inbred dynasties, that aliens are controlling the world, that none of the laws of science are actual, that the imagination and the thought of what is possible are better guides than the "physically manifested world," etc. A rational person might think many of the PCTs are joking. There are Internet sites that seem to be [parody sites](#) but it is difficult to tell, since there seems to be no belief, however inane or absurd, that the PCTs can't fit into their bizarre worldview. A rational person who never heard of Pat Robertson might well read his *New World Order* (Word Books, 1994) and think it must be a joke. Could anyone actually believe his rambling paranoia regarding Jewish bankers, Freemasons, Muslims, homosexuals, foreigners, etc.? Apparently so. Still, one wonders why PCTs exist and their numbers seem to be growing.

Of course, governments and some of the very rich have conspired to rule the world in one form or another. There are enough real conspiracies to satisfy even the greatest Pollyanna that one's government and the extremely rich and powerful don't play by the same rules, if they play by any rules at all, as decent folk. Those of us who have watched the U.S. government support one fascist dictator after another because he was "anti-communist" are uncomfortable to find that there are people who are so far to the right of the right-wing that they too want to expose the cover-ups. It is of no use to point out to the PCTs that our government led coups of democratically elected governments, assassinated leaders of nations and provided military and financial aid to thugs and murderers around the world, in a misguided belief that they were saving the world from communism, as well as opening up new markets for capitalist expansion. Many of the leaders and top agents in our government are and were evil and incompetent, but, as inept as they tend to be, even they would recognize the limits of their ambitions.

But, it is pointless to argue here because the PCTs are expert [pseudohistorians](#): contradictory evidence is used to support rather than refute their notions. Does the U.S. Government go after the world's richest man, Bill Gates? Hah! It's a charade, aimed at getting us off the scent. Wasn't Hitler the one who thought he could rule the world and didn't the Allies stop him? Hitler was a dupe, used to advance the sinister plot to rule the world by the

Illuminati.

some speculation

One can only speculate as to why PCTs exist. It is easy to explain their proliferation: modern mass communications has made it possible for anyone to become his or her own press and propaganda machine. But why PCTs in the first place? The only other experience I've had with such thinking was when I had to get involved with some mentally ill people. I am not joking here. A relative had a "psychotic break" and severe paranoia. We (a group of relatives) were all targets of assassination by some unknown evil people. They could be partially identified by their license plate numbers. If the number started with a "5" then they were evil. No amount of logic or reasoning as to the preposterousness of the notion that anyone would want to kill a person of absolutely no significance was of any use. No amount of reasoning as to how license plate numbers are assigned was of any use. Phone calls could only be made from "secure" lines, which involved either going to the fire department or talking your way up through a series of supervisors until you got a "good one." Through my ill relative I met others who were also afflicted with delusions and incredibly faulty judgment. They did not lose their ability to reason--in fact, my relative seemed even more intelligent in some ways when manic--but their assumptions were taken from sources inaccessible to the ordinary mind. They put vast faith in their intuitions and thought their ideas were brilliant insights when they were little more than the fancies of diseased brains. When I compare reading the literature of the PCTs to entering Bedlam, I mean to be taken literally.

For example, many PCTs consider the Great Seal of the United States and the motto *Novus Ordo Seclorum* to be Masonic and to mean New World Order. These "facts" are considered evidence in the argument to prove the vast conspiracy of the Illuminati. It is useless to argue against these "facts" with PCTs. They consider us dupes who would note that the Latin is usually translated as [New World of the Ages](#) and that the symbol of the eye in the pyramid relates to a poem in the Egyptian Book of the Dead.* Even granting that the Great Seal of the United States and the symbols on our dollar bill are Masonic (which they are not) and that *novus ordo seclorum* means New World Order (which it does not), nothing significant follows, certainly not that there is a vast conspiracy to take over the world.

Providence and eschatology

I think it is likely that many PCTs in the West are initiated into their peculiar way of thinking by their religious training, in particular by their study of the Bible. They have been taught or they assume that everything happens for a purpose and that God ultimately has a reason for every event occurring just as it does. As it becomes more and more difficult to see this world as designed for anything, the theories get more and more preposterous to keep the

teleological delusion alive. The war on evolution and homosexuality--encouraging the abandonment of science and stimulating murderous assaults--so obviously disproportionate by any rational standard, is difficult to explain without seeing the militant fundamentalists as beyond the last stages of desperation. The intense campaigns to expose possible alien abductions, UFOs, and mind-control is likewise preposterously disproportionate to any rational standard. It is becoming nearly impossible to account for the events on this planet with the assumption of a Divine Creator who has a plan and a rationale for everything. The systems of thought that must be created in order to maintain Divine Providence get more insane by the minute. (Explain Hitler, Slobodan Milosovich, or [Ishii Shiro](#). Or, for that matter, explain WACO, Gulf War Syndrome, or any of a number of actual conspiracies engaged in by businessmen such as Bill Gates or political leaders such as Oliver North and his "neat" idea of a government within the government answerable to nobody, or Richard Nixon and the Watergate conspirators, or our formerly secret biological warfare programs.) There is, in fact, a New World Order emerging: the world of Alternative History, Alternative Physics, Alternative Medicine and, ultimately, Alternative Reality.

It is a very natural trait to try to make sense out of the world. The PCTs are trying desperately to make sense out of a world they can no longer relate to. The world is too complicated, too mean, too cold, too unsatisfying for them. In the real world, they are considered nothing and despair of ever being anything but on the outside looking in. They see science as telling them they are an accident and their lives are without meaning. In their alternative world, they rule and are hopeful. Everything is in its place or will be put in its place. There is order and meaning. Life is significant.

the end is near

The actual mechanism by which PCTs arrive at their weird notions is not that difficult to ascertain. The mentally ill people I came to know couched their paranoid fears in terms of the F.B.I. and the C.I.A. They had no [communal reinforcement](#) of their delusions, however. No talk show host or publisher invited them to share their delusions with the world. They are under treatment, have been hospitalized, arrested, etc. They know that those around them will not accept their delusions. This is not true of religious or UFO groups. They reinforce each other and strengthen each other's resolve. They encourage each other to accept possibility as equal to probability, material experience as inferior to dreams, hallucinations, and out-of-body experiences, etc. They have no watchdog equivalent to [I. F. Stone](#), and the mass media is too busy chasing tabloid rumors and celebrities to serve as a watchdog of anything. And since the PCTs function almost completely outside of the normal arenas where they would be challenged and forced to produce evidence in place of speculation, they flourish relatively unscathed and await their next appearance on the [Art Bell or Mike Siegal](#) or [Pat Robertson](#) show, seemingly oblivious to the absurdity of such behavior during the final days of

planet earth.

See related entries on [alien abductions](#), [Area 51](#), [creationism](#), [Freemasons](#), [mind control](#), [Protocols of the Elders of Zion](#), [Roswell](#), and [UFOs](#).

further reading

[reader comments](#)

- ["Conspiracy Theories and Paranoia: Notes from a Mind-Control Conference"](#) by Evan Harrington
- [Illuminati](#) - *Encyclopedia of Skepticism and the Paranormal*, The New England Skeptical Society
- [Freemason -- from the 700 Club to Art Bell, an Object of Conspiracy Thinking](#) by Conrad Goeringer
- [Conspire.com](#) (based on the Book [70 Greatest Conspiracies of All Time](#))
- [Journal of The Inquiring Skeptics of Upper New York](#) -parody by Michael Shermer (to find Shermer's piece, do a search for 'illuminati')
- [Symbols and Mottoes on the Great Seal](#)
- [How the Pyramid got on the Great Seal](#)
- [The anti-Pat Robertson/Christian Coalition Site](#)
- [Illuminati](#), the Game by Steve Jackson
- [Are the MJ-12 documents for real?](#) About.com
- [Does May Day actually commemorate the birth of the Illuminati? 04-Feb-1982 - The Straight Dope](#)

[Abanes, Richard. *End-Time Visions: The Road to Armageddon* \(Four Walls Eight Windows, 1998\).](#)

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[Camp, Gregory S. *Selling Fear: Conspiracy Theories and End-Times Paranoia* \(Baker Book House, 1997\).](#)

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[Pipes, Daniel. *Conspiracy: How the Paranoid Style Flourishes and Where It*](#)

[Comes From \(The Free Press, 1997\).](#)

[Roberts J. *Mythology of the Secret Societies* \(MacMillan Publishing Company, 1972\).](#)

[Vankin, Jonathan and John Whalen. *The Seventy Greatest Conspiracies of All Time: History's Biggest Mysteries, Coverups, and Cabals* \(Citadel, 1998\).](#)

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[ideomotor effect](#)

[incantation](#)



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[Freemasons open doors to 'secret society'](#) BBC - June 26, 2002

[Fezzes, Sphinxes and Secret Handshakes](#) by Peter Carlson, November 25, 2001

Freemasons

The Freemasons comprise an international secular fraternal order. Freemasons are organized into lodges. Groups of lodges belong to a Grand Lodge or Grand Orient, but there is no single governing body that directs all the Grand Lodges. The origins of the Freemasons are disputed, but the first organized lodges date from 1717 in England. Members consider others in their lodge as "brothers" or "brethren," but consider members of other lodges as brothers only if their lodges officially recognize each other. Freemasons are sometimes accused of being secretive societies because they have "signs of recognition such as handshakes, passwords, and references that only initiated members would understand."*

Freemasonry is not a secret society, [cult](#), religion or anti-Christian sect, nor is it behind the [Illuminati](#), although it is often accused of being such.

Membership does require belief in a Supreme Being and there is a Masonic Bible, usually the King James Version of the same book accepted by those Christians who accuse the Masons of being anti-Christian.

Much anti-Masonic sentiment has been aroused by various tracts and books. In 1827, for example, [William Morgan](#), who had been denied membership, joined with printer David Miller to published a diatribe entitled "Freemasonry Exposed." The tract itself may not have caused as much anti-Masonic sentiment as did the ensuing stories in the press that Morgan had been kidnapped and murdered by Masons in retaliation for exposing their secret beliefs and rituals. (The evidence strongly indicates that Morgan escaped from jail, where he was being held for a bad debt, and left town unscathed.)

Typical of recent attacks on Freemasonry are the works of Jim Shaw (1988: *The Deadly Deception: Freemasonry Exposed by One of Its Top Leaders*) and Charles Madden (1995: *Freemasonry - Mankind's Hidden Enemy: With Current Official Catholic Statements*). These malicious writings seem primarily motivated by opposition to Masonic beliefs in the brotherhood of man and the belief that strong moral character has nothing to do with organized religion. The hatred of the group is kept alive by Christian evangelists such as [Pat Robertson and talk show hosts like Art Bell](#) (Goeringer 1998).

In 1868, the [National Christian Association](#) (NCA) was formed in Pittsburg for the sole purpose of blaming secretive societies for most of the world's ills. The NCA still exists and still puts the Freemasons at the top of their list of secret societies [behind political assassinations, promotion of sexual immorality, and other evils](#).

Despite this long history of attack and abuse, the Freemasons [continue to flourish](#). There are over 4 million members worldwide. There are also [several Masonic affiliated organizations](#), including the [Shriners](#), which extend the social and charitable work of the Freemasons. Notable Masons include George Washington, Harry Houdini, Benjamin Franklin, and Thurgood Marshall. If Freemasonry has a flaw it is this: women are not allowed to be members of a Masonic lodge.

further reading

- [Freemason -- from the 700 Club to Art Bell, an Object of Conspiracy Thinking](#) by Conrad Goeringer
- [Freemasonry Primer](#)
- [The Irish Freemasons](#)
- [The Grand Lodge of England](#)
- [Freemasons of Vermont](#)
- [Masonic Resources on the Web](#)
- [Freemason info page](#)

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[Charles Fort & the Forteans](#)

[free will](#)



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[Creationist Museum
Acquires 5,000-year-
old T. Rex - *The
Onion*](#)

[Eminent biologist hits
back at the
creationists who
'hijacked' his theory
for their own ends](#) By
Steve Connor,
Science Editor

[Town's schools
abandon creationism
Threat of lawsuit
prompts school board
to change course](#)

[Bishop warns Blair
over danger of
creationism](#) Robin
McKie, science editor
Sunday April 7, 2002
The Observer

**According to a
recent Gallup poll,
Americans are
about equally split
regarding
evolution. 49%
believe in evolution
and 45% believe in
special creation.
37% of those who
believe in evolution
believe God guides
the process.**

creationism and creation science

*...the evolution of the cosmos is more than just "compatible" with
theism. Faith in a God of self-giving love...anticipates an evolving
universe.** [John F. Haught](#)

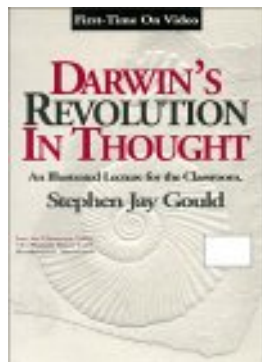
Nothing in biology makes sense except in the light of evolution.
[Theodosius Dobzhansky \(1973\)](#)

*We do not know how the Creator created, what processes He used, for
He used processes which are not now operating anywhere in the natural
universe. This is why we refer to creation as special creation. We cannot
discover by scientific investigations anything about the creative
processes used by the Creator.* Duane Gish, *Evolution? The Fossils
Say No!*

Creationism is a religious [metaphysical](#) theory which claims that a supernatural being created the universe. Creation Science is a [pseudoscientific](#) theory which claims that (a) the stories in *Genesis* are accurate accounts of the origin of the universe and life on Earth, and (b) *Genesis* is incompatible with the Big Bang theory and the theory of evolution. "Creation Science" is an oxymoron since [science](#) is concerned only with [naturalistic](#) explanations of [empirical](#) phenomena and does not concern itself with supernatural explanations of metaphysical phenomena.

Creationism is not necessarily connected to any particular religion. Millions of Christians and non-Christians believe there is a Creator of the universe and that scientific theories such as the theory of evolution do not conflict with belief in a Creator. However, those Christians calling themselves 'creation scientists' have co-opted the term 'creationism', making it difficult to refer to creationism without being understood as referring to Scientific Creationism. Thus, it is commonly assumed that creationists are Christians who believe that the account of the creation of the universe as presented in *Genesis* is literally true in its basic claims about Adam and Eve, the six days of creation, making day and night on the first day even though He didn't make the sun and moon until the fourth day, making whales and other animals that live in the water or have feathers and fly on the fifth day, and making cattle and things that creep on the earth on the sixth day, etc.

Creation scientists claim that *Genesis* is the word of God and thus infallibly true. They also claim that *Genesis* contradicts the Big Bang theory and the theory of evolution. Thus, those theories are false and scientists who advocate such theories are ignorant of the truth about the origins of the universe and life on Earth. They also claim that creationism is a scientific theory and



[Stephen Jay Gould: Darwin's Revolution In Thought](#) (video)



[Blueprints : Solving the Mystery of Evolution by Maitland A. Edey and Donald C. Johanson](#)

should be taught in our science curriculum as a competitor to the theory of evolution.

One of the main leaders of creation science is Duane T. Gish of the [Institute for Creation Research](#), who puts forth his views mainly in the form of attacks on evolution. Gish is the author of *Evolution, the Challenge of the Fossil Record* (San Diego, Calif.: Creation-Life Publishers, 1985), *Evolution, the Fossils Say No!* (San Diego, Calif.: Creation-Life Publishers, 1978), and *Evolution, the Fossils Still Say No!* (Spring Arbor Distributors, 1985). Another leader of this movement is Walt Brown of the [Center for Scientific Creation](#). Despite the fact that 99.99% of the scientific community considers evolution of species from other species to be a fact, the creation scientists proclaim that evolution is not a fact but just a theory, and that it is false. The vast majority of scientists who disagree about evolution disagree as to *how* species evolved, not as to *whether* they evolved.

Scientific creationists are not impressed that they are in the minority. After all, they note, the entire scientific community has been wrong before. That is true. For example, at one time the geologists were all wrong about the origin of continents. They thought the earth was a solid object. Now they believe that the earth consists of plates. The theory of plate tectonics has replaced the old theory, which is now known to be false. However, when the entire scientific community has been proved to be wrong in the past it has been proved to be wrong by other scientists, not pseudoscientists. They have been proved wrong by others doing empirical investigation, not by others who begin with faith in a religious dogma and who see no need to do any empirical investigation to prove their theory. Erroneous scientific theories have been replaced by better theories, i.e., theories which *explain more* empirical phenomena and which increase our understanding of the natural world. Plate tectonics not only explained how continents can move, it also opened the door for a greater understanding of how mountain ranges form, how earthquakes are produced, how volcanoes are related to earthquakes, etc. Creationism is not a scientific alternative to natural selection any more than the stork theory is an alternative to sexual reproduction (Hayes 1996). The theory has not and is unlikely ever to lead to a serious understanding of biological phenomena in the natural world.

Darwin & Gish

Darwin's theory of how evolution happened is called natural selection. That theory is quite distinct from the fact of evolution. Other scientists have different theories of evolution, but only a negligible few deny the fact of evolution. In the *Origin of Species* Darwin provided vast amounts of data about the natural world that he and others had collected or observed. Only after providing the data did he demonstrate how his theory accounted for the data much better than the theory of special creation. Gish, on the other hand, assumes that whatever data there is must be explained by special creation,

because, he thinks, God said so in the Bible. Furthermore, Gish claims that it is impossible for us to understand special creation, since the Creator “used processes which are not now operating anywhere in the natural universe.” Thus, Gish, rather than gather data and demonstrate how special creation explains the data better than natural selection, must take another approach, the approach of apologetics. His approach, and that of all the other creation scientists, is to attack at every opportunity what they take to be the theory of evolution. Rather than show the strengths of their own theory, they rely on trying to find and expose weaknesses in evolutionary theory. Gish and the other creation scientists actually have no interest in *scientific* facts or theories. Their interest is in defending the faith against what they see as attacks on God’s Word.

For example, creation scientists, mistaking the uncertain in science for the unscientific, see the debate among evolutionists regarding how best to explain evolution as a sign of weakness. Scientists, on the other hand, see uncertainty as an inevitable element of scientific knowledge. They regard debates on fundamental theoretical issues as healthy and stimulating. Science, says evolutionary biologist [Stephen Jay Gould](#), is “most fun when it plays with interesting ideas, examines their implications, and recognizes that old information may be explained in surprisingly new ways.” Thus, through all the debate over evolutionary mechanisms biologists have not been led to doubt that evolution has occurred. “We are debating how it happened,” says Gould (1983, 256).

"creation science" and pseudoscience

Creation science is not science but [pseudoscience](#). It is religious dogma masquerading as scientific theory. Creation science is put forth as being absolutely certain and unchangeable. It assumes that the world must conform to its understanding of the Bible. Where creation science differs from creationism in general is in its notion that once it has interpreted the Bible to mean something, no evidence can be allowed to change that interpretation. Instead, the evidence must be refuted.

Compare this attitude to that of the leading European creationists of the 17th century who had to admit eventually that the Earth is not the center of the universe and that the sun does not revolve around our planet. They did not have to admit that the Bible was wrong, but they did have to admit that human interpretations of the Bible were in error. Today’s creationists seem incapable of admitting that their interpretation of the Bible could be wrong.

Creation scientists are not scientists because they assume that their interpretation of the Bible cannot be in error. They put forth their views as irrefutable. Hence, when the evidence contradicts their reading of the Bible, they assume that the evidence is false. The only scientific investigation they do is aimed at proving some evolutionary claim is false. Creation scientists

see no need to test their theory, since God has revealed it. Infallible certainty is not the hallmark of science. Scientific theories are fallible. Claims of infallibility and the demand for absolute certainty characterize not science but pseudoscience.

What is most revealing about the creation scientists' lack of any true scientific interest is the way they willingly and uncritically accept even the most preposterous of claims, if those claims seem to contradict traditional scientific beliefs about evolution. For example, any evidence that seems to support the notion that [dinosaurs and humans lived together](#) is welcomed by the creationists. And the way creation scientists treat [the second law of thermodynamics](#) indicates either gross scientific [incompetence](#) or deliberate dishonesty. They claim that evolution of life forms violates the second law of thermodynamics, which "specifies that, on the macroscopic scale of many-body processes, the entropy of a closed system cannot decrease (Stenger)."

Consider simply a black bucket of water initially at the same temperature as the air around it. If the bucket is placed in bright sunlight, it will absorb heat from the sun, as black things do. Now the water becomes warmer than the air around it, and the available energy has increased. Has entropy decreased? Has energy that was previously *unavailable* become available, in a closed system? No, this example is only an apparent violation of the second law. Because sunlight was admitted, the local system was not closed; the energy of sunlight was supplied from outside the local system. If we consider the larger system, including the sun, entropy has *increased* as required (Klyce).

Creation scientists treat the evolution of species as if it were like the bucket of water in the example above, which, they incorrectly claim, occurs in a closed system. If we consider the entire system of nature, there is no evidence that the second law of thermodynamics is violated by evolution.

Finally, although Karl Popper's notion that falsifiability distinguishes scientific from metaphysical theories has been much attacked by philosophers of science (Kitcher), it seems undeniable that there is something profoundly different about such theories as creationism and natural selection. It also seems undeniable that one profound difference is that the metaphysical theory is consistent with every conceivable empirical state of affairs, while the scientific one is not. "I can envision observations and experiments that would disprove any evolutionary theory I know," writes Gould, "but I cannot imagine what potential data could lead creationists to abandon their beliefs. Unbeatable systems are dogma, not science" (Gould, 1983).

Creationism can't be refuted, even in principle, because everything is consistent with it, even apparent contradictions and contraries. Scientific

theories allow definite predictions to be made from them; they can, in principle, be refuted. Theories such as the Big Bang theory, the steady state theory, and natural selection can be tested by experience and observation. Metaphysical theories such as creationism are “airtight” if they are self-consistent, i.e., contain no self-contradictory elements. No scientific theory is ever airtight.

What makes scientific creationism a **pseudoscience** is that it attempts to pass itself off as science even though it shares none of the essential characteristics of scientific theorizing. Creation science will remain forever unchanged as a theory. It will engender no debate among scientists about fundamental mechanisms of the universe. It generates no empirical predictions that can be used to test the theory. It is taken to be irrefutable. And it assumes *a priori* that there can be no evidence that will ever falsify it.

creationism as a scientific theory

Religious creationism could be scientific, however. For example, if a theory says that the world was created in 4004 B.C. but the evidence indicates that Earth is several billions of years old, then the theory is a scientific one if it is thereby taken to be refuted by the evidence. But if, for example, the [ad hoc hypothesis](#) is made that God created the world in 4004 B.C. complete with fossils that make the Earth look much older than it really is (to test our faith, perhaps, or to fulfill some mysterious divine plan), then the religious theory is [metaphysical](#). Nothing could refute it; it is airtight. Philip Henry Gosse made this claim in Darwin’s time in a work entitled *Creation (Omphalos): An Attempt to Untie the Geological Knot*, published in 1857.

If the age or scientific dating techniques of fossil evidence is disputed, but considered relevant to the truth of the religious theory and is prejudged to be consistent with the theory, then the theory is a metaphysical one. A scientific theory cannot prejudge what its investigative outcomes must be. If the religious cosmologist denies that the earth is billions of years old on the grounds that their own “scientific” tests prove the Earth is very young, then the burden of proof is on the religious cosmologist to demonstrate that the standard scientific methods and techniques of dating fossils, etc., are erroneous. Otherwise, no reasonable person should consider such an unsupported claim that would require us to believe that the entire scientific community is in error. Gish has tried this. The fact that he is unable to convert even a small segment of the scientific community to his way of thinking is a strong indication that his arguments have little merit. This is not because the majority must be right. The entire scientific community could be deluded. However, since the opposition issues from a religious dogmatist who is not doing scientific investigation but theological apologetics, it seems more probable that it is the creation scientists who are deluded rather than the evolutionary scientists.

metaphysical creationists

There are many believers in a religious cosmology such as that given in *Genesis* who do not claim that their beliefs are scientific. They do not believe that the Bible is to be taken as a science text. To them, the Bible contains teachings pertinent to their *spiritual* lives. It expresses spiritual ideas about the nature of God and the relationship of God to humans and the rest of the universe. Such people do not believe the Bible should be taken literally when the issue is a matter for scientific discovery. The Bible, they say, should be read for its spiritual messages, not its lessons in biology, physics or chemistry. This used to be the common view of religious scholars. Allegorical interpretations of the Bible go back at least as far as [Philo Judaeus](#) (b. 25 BCE). Philosophical analyses of the absurdity of popular conceptions of the gods were made by philosophers such as [Epicurus](#) (342-270). Creation scientists have no taste for allegorical interpretations.

creationism and politics

Advocates of creation science have campaigned to have their Biblical version of creation taught as science in U.S. public schools. One of their successes was in the state of Arkansas, which passed a law *requiring* the teaching of creationism in public schools. This accomplishment may seem significant but it must be remembered that until 1968 it was [illegal](#) to teach evolution in Arkansas! In 1981, however, the law was ruled unconstitutional by a federal judge who declared creationism to be religious in nature (*McLean v. Arkansas*). A similar Louisiana law was overturned by the United States Supreme Court in 1987 ([Edwards v. Aguillard](#)). In 1994, the Tangipahoa Parish school district passed a law, under the guise of promoting “critical thinking,” requiring teachers to read aloud a disclaimer before they taught evolution. This dishonest ruse was [thrown out](#) by the 5th Circuit Court of Appeals in 1999. Another tactic was tried by creationist biology teacher John Peloza in 1994. He sued his school district for forcing him to teach the “religion of evolutionism.” He lost and the [the 9th Circuit Court of Appeals ruled](#) that there is no such religion. In 1990 the Seventh Circuit Court of Appeals ruled that school districts may forbid the teaching of creationism since it is a form of religious advocacy (*Webster v. New Lenox School District*). Many religious leaders support this ruling. They recognize that allowing school districts to teach creationism is to favor one group’s religious views over the religious views of others and has nothing to do with critical thinking or fairness in the science curriculum.

Creation scientists may have failed in their attempts to have evolution banned from the classroom and to have creationism taught alongside evolution. However, politically active creationists have not given up; they have just changed tactics. Creationists have been encouraged to run for local school boards to try to gain control of the teaching of evolution that way. School boards can determine what texts the schools may and may not use.

Creationists who complain to school boards about the teaching of evolution are more likely to be successful in their efforts at censoring science texts if the school board has several creationists.

In Alabama, biology textbooks carry a warning that says that evolution is “a controversial theory some scientists present as a scientific explanation for the origin of living things. . . .No one was present when life first appeared on earth. Therefore, any statement about life’s origins should be considered as theory, not fact.” In Alabama, it seems, if you wake up to snow on the ground, but no one saw it snowing, then you may only propose a theory as to the origin of the snow.

In August of 1999 the Kansas State Board of Education rejected evolution and the Big Bang theory as scientific principles. The 10-member board voted six to four to eliminate these topics from the science curricula. The Kansas Board did not ban the teaching of evolution or of the Big Bang Theory. The Board simply deleted any mention of evolution and the Big Bang theory from the science curriculum and from the materials used to test graduating students. Creationists, such as Board Member Steve Abrams, a former head of the state Republican Party, hailed the decision as a victory in the war against evolutionists. A new Board restored the scientific theories to their previous place in February 2001. Creationists want children to believe that God made them and every other species individually for a purpose. They do not want children to think that a divine power might be behind the Big Bang or evolution of species.

At the same time that militant creationists are trying to censor textbooks that treat evolution properly, they complain of censorship against creationist works.* This tactic of fighting fire with fire has led creationist Jerry Bergman to argue that evolution (unlike *Genesis*?) teaches that women are inferior to men. The goal of militant creationists is to debunk evolution wherever possible, not to forward scientific knowledge. (See [Revolution Against Evolution](#).) One of their favorite tactics is to blame all sin and crime on lack of proper Bible study and the teaching of “godless” theories such as evolution and the Big Bang theory. Marc Looy of the group **Answers in Genesis** says that the 1999 Kansas vote was important because

students in public schools are being taught that evolution is a fact, that they're just products of survival of the fittest. . . .It creates a sense of purposelessness and hopelessness, which I think leads to things like pain, murder, and suicide.

That there is no scientific evidence to support these claims is a matter of indifference to those who believe them. When science does not support their beliefs, they attack science as the handmaiden of **Satan**. I wonder what Mr. Looy has to say about [Christian Identity](#) (Buford Furrow Jr.) or [Erich Rudolph](#) or Operation Rescue ([Randal Terry](#)) and other Bible-loving groups

that preach hatred and inspire violence and murder. What would he say about Matthew and Tyler Williams who, in the words of their mother, "took out two homos" because that's what God's law [[Leviticus 20:13](#)] demands? (*Sacramento Bee*, "Expert: Racists often use Bible to justify attacks," by Gary Delsohn and Sam Stanton, Sept. 23, 1999.*)_ These killers have certainly found a purposeful existence, but there is clearly no connection between purposefulness and the end of pain, murder, or suicide. Had more people been forced to read Biblical quotations on their schoolroom walls or in their textbooks, for all we know, there would be more, not less pain, murder, and violence.

The desperation of many creationists is evident from the fact that despite numerous corrections by evolutionists, they still try to get the public to identify evolution with [Social Darwinism](#). This [straw man tactic](#) is common and is exemplified in the following letter to the *Sacramento Bee*. The letter was in response to an article on an expert who claims that racists often use the Bible to justify their hate.

**It is Darwinian evolution, not holy Scripture, that justifies racism.... evolution teaches survival of the fittest, including (as Hitler recognized) survival of the fittest "branch" of the human family tree. Genuine evolution has no place for true equality. This same evolutionist thinking underlies the hatred that racist groups display toward homosexuals. They view homosexuals as defective and thus inferior. (-----
10/3/99)**

The view that Darwin's theory of natural selection implies racism or inequality is a claim made by one either ignorant of Darwin's theory or by one who knows the truth and thinks a lie spread in the name of religion is a morally justified lie.

militant creationism evolves

The creation science folks accept microevolution but not macroevolution. This allows them to account for development and changes within species without requiring them to accept the concept of natural selection.

Macroevolution is the direct attempt to explain the origin of life from molecules to man in purely naturalistic terms. In doing so, it is an affront to Christians because it deliberately tries to get rid of God as the creator of life. The idea that man is a result of millions of happy accidents that mutated their way from slime through the food chain to monkeys should be offensive to every thinking person (Sharp)._*

What should be an affront to many Christians and non-Christian creationists

is the insinuation that if one does not adhere to this Christian's interpretation of the Bible, one is offending God. Many creationists believe that God is behind the beautiful unfolding of evolution (Haught).^{*} There is no contradiction in believing that what appears to be a mechanical, purposeless process from the human perspective, can be teleological and divinely controlled. Natural selection does not require that one "get rid of God as the creator of life" any more than heliocentrism requires one to get rid of God as the creator of the heavens.

See **related entries** on God, [metaphysics](#), [pseudoscience](#) and [science](#).

further reading

[reader comments](#)

- [15 Answers to Creationist Nonsense from *Scientific American*](#)
- [Vox Populi The voice of the people reveals why evolution remains controversial](#) By Michael Shermer June 17, 2002
- [Statement on Teaching Evolution from the National Association of Biology Teachers](#)
- [Equal Time for Creationism?](#) By Al Seckel and John Edwards
- [Mass Media Funk - Kansas and other states try to debunk evolution](#)
- [THE SECOND LAW OF THERMODYNAMICS](#) by Brig Klyce
- [The Emperor's New Designer Clothes](#) by Vic Stenger
- [Does Evolution Rule Out God's Existence?](#) John F. Haught, Ph.D. Georgetown University
- [Darwin Re-Crucified Why Are So Many Afraid of Naturalism?](#) by Paul Kurtz
- [Evolution](#) from About.com
- [National Center for Science Education](#) Scientific Evolution vs. Metaphysical Creationism
- [Science and Creationism](#) - the National Academy of Sciences
- [Teaching About Evolution and the Nature of Science](#) - the National Academy of Sciences
- ["Thermodynamics, Creationism, and Evolution"](#) by John Patterson
- ["Creationism: the growing threat"](#) by Eugenie C.Scott
- [The General Anti-Creationism FAQ](#)
- ["Religion, Science, and Law: Defining the Science in Scientific Creationism"](#) by Dov Wisebrod
- [WILL CREATIONISTS ABANDON CREATION-"SCIENCE"?](#) [Scientific Malpractice: The Creation/Evolution Debate](#), by Ivan L. Zabilka, 1992, Bristol Books, 160 pp. By Jim Lippard

- Lippard, Jim, [Review of Duane Gish's *Creation Scientists Answer Their Critics*](#)
- [The New Creationist Assault on Science Education](#)
- [Louisiana calls Darwin a racist](#) by Fiona Morgan
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Protocols of the Elders of Zion

"The only statement I care to make about the *Protocols* is that they fit in with what is going on. They are sixteen years old, and they have fitted the world situation up to this time. They fit it now." --Henry Ford, 2-17-21, whose newspaper, the *Dearborn Independent*, cited the *Protocols* as evidence of an alleged Jewish threat until at least 1927

"To what extent the whole existence of this people is based on a continuous lie is shown incomparably by the *Protocols of the Wise Men of Zion....*" --Adolph Hitler, *Mein Kampf*

The *Protocols of the Elders of Zion* is a forgery made in Russia for the Okhrana (secret police), which blames the Jews for the country's ills. It was first privately printed in 1897 and was made public in 1905. It is copied from a nineteenth century novel by Hermann Goedsche (*Biarritz*, 1868) and claims that a secret Jewish cabal is plotting to take over the world.

The basic story was composed by Goedsche, a German novelist and anti-Semite who used the pseudonym of Sir John Retcliffe. Goedsche stole the main story from another writer, Maurice Joly, whose *Dialogues in Hell Between Machiavelli and Montesquieu* (1864) involved a Hellish plot aimed at opposing Napoleon III. Goedsche's original contribution consists mainly of introducing Jews to do the plotting to take over the world.

The Russians used big chunks of a Russian translation of Goedsche's novel, published it separately as the *Protocols*, and claimed they were authentic. Their purpose was political: to strengthen the czar Nicholas II's position by exposing his opponents as allies with those who were part of a massive conspiracy to take over the world. Thus, the *Protocols* are a forgery of a plagiarized fiction.

The *Protocols* were exposed as a forgery by Lucien Wolf in *The Jewish Bogey and the Forged Protocols of the Learned Elders of Zion* (London: Press Committee of the Jewish Board of Deputies, 1920). In 1921, Philip Grave, a correspondent for the *London Times*, publicized the forgery. Herman Bernstein in *The Truth About "The Protocols of Zion": A Complete Exposure* (1935) also tried and failed to convince the world of the forgery.

The *Protocols* were published in 1920 in a Michigan newspaper started by Henry Ford mainly to attack Jews and Communists. Even after they were exposed as a forgery, Ford's paper continued to cite the document. Adolf Hitler later used the *Protocols* to help justify his attempt to exterminate Jews

during World War II.

The *Protocols* hoax continues to fool people and is still cited by certain individuals and groups as [the cause of all their woes](#).

See related entries on [Holocaust denial](#), the [Illuminati](#) and [shoehorning](#).

further reading

- [The Protocols of the Elders of Zion](#)
- [What's the story with the "Protocols of the Elders of Zion"? The Straight Dope](#)

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reader comments:

illuminati

11 Nov 2002

The phrase "new world order" actually may originate from the statements made by Franklin D. Roosevelt and Winston Churchill. The outcome of WWII was clearly going to dictate the new world order and balance of powers, and the establishment of the U.N. was seen as a means of continuing the unprecedented cooperation and merging of national interests by providing an ongoing diplomatic forum that would continue to operate in peacetime, and the establishment of the Security Council with unilateral veto powers a means of further refining who the conquering powers felt they had to keep close counsel with. The allied military command of WWII headed by Eisenhower as Supreme Commander (directing both British and American forces) kind of laid the foundations for NATO.

A speech given by Franklin D. Roosevelt shortly after he signed the Lend-Lease Act (committing resources and aid to Britain in order to fend off the Nazi onslaught) remarks of Nazi Germany -

"These men and their hypnotized followers call this a new world order. It is not new, and it is not order." (Washington, D.C., March 15, 1941)

In the years following WWII, Winston Churchill made several remarkable speeches concerning the newly globalized community and the direction it should take, the role of the U.N. as a policing force, etcetera, most notably in his "Sinews of Peace" speech wherein he warns of an "Iron Curtain" falling over the Soviet held territories of Eastern Europe.

So, if the paranoid Illuminati conspiracy buffs really want to find who to blame for the international shadow government with its fleet of black helicopters, they need look no further than Winston Churchill and FDR (followed by Truman), the men who conceived of and implemented their own New World Order, which may not actually look so bad compared to the Nazi version that would have chiefly entailed the death or enslavement of most of the world's population.

Edward

07 Dec 2000

First of all I am not religious in any way, do not believe in the paranormal, I

am not paranoid and I am certainly not mentally disturbed.

What does disturb me is the way in which you have everyone stereotyped into categories i.e. PCT's just because they happen to believe in a theory that is not taught or mentioned at school or college, or is not mentioned in written and broadcasted media.

reply: I hope I've given more justification for my belief that the illuminati are no longer real than that this notion is not taught in school or a topic in the mainstream mass media.

I happen to believe that maybe there is some truth in the concept of the "Illuminati" and it's goals i.e. total control, one world government etc. Although I do not believe in the witchcraft or the paranormal side of this theory. The reason for me believing this is not only due to the fact that everything in the media, written and broadcasted, fits in with the Illuminati theory even to this day. i.e. the election in the States, the way in which the election of the so called most powerful man in the world is being reduced to a farce. I also happen to live and work in UK for an American investment company (the companies insignia is the same as that can be found on the dollar bill and the same as that of British Intelligence, maybe coincidence) It is supposedly the largest in the world in terms of assets. Whilst working for this company within the IT department I have come to notice on numerous instances certain things that don't add up, all of which tie in with the theory. I can not go into detail, not because of facts or evidence (which I could get) but because I have signed certain confidentiality agreements and I'm sure you could find out who I am quite easily.

So please do not class me as a PCT's, but please try to maybe be a bit more open minded. And for all we know you and your web site could be set up to discredit the theorist anyway, by the way isn't all known science based on theories? Have you tested all these theories yourself, or do you dismiss them all as well?

Dan, UK

reply: Dan is right. I could be part of the Illuminati conspiracy. Perhaps I haven't written all this material in *The Skeptic's Dictionary*. Maybe it's just a front used to hook people or a smokescreen to set them off track. Dan's got his evidence he can't tell us about, so I can't comment on that. I will say, though, that (a) it is easy to find evidence to support just about any theory; and (b) some PCTs may turn out to be right once in a while, like Hillary Clinton's "vast right wing conspiracy." (See pp. 72-73 of my [Becoming a Critical Thinker](#).)



[illuminati](#)

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the ideomotor effect

The ideomotor effect refers to the influence of suggestion on involuntary and unconscious motor behavior. The term "ideomotor action" was coined by William B. Carpenter in 1852 in his explanation for the movements of rods and pendulums by [dowers](#), and some table turning or lifting by [spirit mediums](#) (the ones that weren't accomplished by cheating). Carpenter argued that muscular movement can be initiated by the mind independently of volition or emotions. We may not be aware of it, but suggestions can be made to the mind by others or by observations. Those suggestions can influence the mind and affect motor behavior.

Scientific tests by American psychologist William James, French chemist Michel Chevreul, English scientist Michael Faraday, and American psychologist Ray Hyman have demonstrated that many phenomena attributed to spiritual or paranormal forces, or to mysterious "[energies](#)," are actually due to ideomotor action. Furthermore, these tests demonstrate that "honest, intelligent people can unconsciously engage in muscular activity that is consistent with their expectations" (Hyman 1999). They also show that suggestions that can guide behavior can be given by subtle clues (Hyman 1977).

The movement of pointers on [Ouija boards](#), of a facilitator's hands in [facilitated communication](#), of hands and arms in [applied kinesiology](#), and of some behaviors attributed to [hypnotic suggestion](#), are due to ideomotor action. Ray Hyman (1999) has demonstrated the seductive influence of ideomotor action on medical quackery, where it has produced such appliances as the "[Toftness Radiation Detector](#)" (used by [chiropractors](#)) and "black boxes" used in medical [radiesthesia](#) and [radionics](#) (popular with [naturopaths](#) to harness "[energy](#)" used in diagnosis and healing.) Hyman also argues that such things as [Qi Gong](#) and "pulse diagnosis," popular in both Traditional Chinese Medicine and Ayurvedic medicine as practiced by [Deepak Chopra](#), are best explained in terms of ideomotor action and require no supposition of mysterious energies such as [chi](#).

See related entries on [cold reading](#) and [spiritism](#).

further reading

- "[The Mischief-Making of Ideomotor Action](#)," by Ray Hyman (This article appeared in the *Scientific Review of Alternative Medicine* 3(2):34-43, 1999.)

- [Guide to Cold Reading](#) by Ray Hyman

Hyman, Ray. "'Cold Reading': How to Convince Strangers That You Know All About Them," *The Skeptical Inquirer* Spring/Summer 1977.

[Sampson, Wallace and Lewis Vaughn, editors. *Science Meets Alternative Medicine: What the Evidence Says About Unconventional Treatments* \(Prometheus Books, 2000\).](#) Chapter 6 is "The Mischief-Making of Ideomotor Action," by Ray Hyman.

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Last updated 11/01/02

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reader comments:

cosmobiology

26 Jun 2000

My name is Veronica Chlap and I have my article entitled "[Some points on Cosmobiology](#)" linked to your skeptic site. I cannot recall giving you permission to link to my article, and hereby ask you to take out your link to my article on your site.

reply: You don't have anything linked to my skeptic site. However, I do have a link on my cosmobiology page to the article you mention.

Permission is not needed to link to anything on the WWW. Hence, I have not made requests to the 2,000 or so people whose web pages I link to. You didn't give permission because it was never asked for.

I hope you will understand my position and comply with my wishes.

reply: Not really. I would think that you have put your article on the WWW because you want others to read it. The more links to your article, the more likely it is to be read by more people.

Thanking you in anticipation,

Sincerely,

Veronica Chlap

reply: If you want to try to control who reads or refers to your writings, you should remove them from the WWW. Your request is not reasonable. It is like hanging out your laundry and demanding that people not look at it or refer to it unless they get your permission first.

27 Jun 2000

And your reply is not reasonable either. You have in a clever manner twisted your arguments to suit your own opinions. If you can do that then so can I. We could go on doing that forever. But who would decide on the outcome so that a resolution to this difference of opinions could be found?

You are in no position to judge my opinions and wishes, just as I am in no position to judge yours.

reply: I don't know what world you live in, but in my world anyone is free to judge anyone else's opinions. As for wishes, why would I want to

judge your wishes? Wish as you please.

So I will shed a different light on the matter in order to move forward on this issue.

I own the intellectual property to the article.

If you wish to prove your points regarding cosmobiology then please do so, but write your own articles or comply with web protocols which do exist to recognise the intellectual rights of authors- namely ask for the author's permission before using articles in any manner whatsoever.

reply: I'm not *using* your article. I don't quote from it or reproduce it. I don't even refer to it. I *link* to it. I have no control over your material and unless I post your material on my page I can't infringe on your "intellectual rights." You obviously have no clue as to what rights you have as an author of material posted on the Internet. I suggest you consult a lawyer knowledgeable in these matters, so you don't continue to make a fool of yourself.

Web pages have intellectual property - your site and associated pages have them.

reply: These claims make no sense. A person can have a trademark and the trademark is the owner's intellectual property, but the *trademark* cannot have intellectual property.

You have taken my intellectual property without my permission and placed it into your site (which is your intellectual property).

reply: Again, I remind you that I have taken nothing and placed nothing in my site except a *link* to your site. You should understand that once you put material on the Internet and do not protect it with passwords or use other means of controlling access, anyone in the universe can link to it and there is nothing you can do about it.

So you have taken something which belongs to me and used it to add value to something which belongs to you and not asked me. Now is that reasonable?

Veronica

reply: I've taken nothing of yours, and the link to your page certainly has not added any value to my material. I wonder how many people would even bother to find out more about cosmobiology once they read about its essential inanity. There were only ten hits on my cosmobiology page last week, and half of those were probably from bots and crawlers.

Your page is linked to because I wanted my readers to have easy access

to how the other side thinks. Any reader who so desires could leave my page, do a search using any one of many search engines, and find your page. The link makes it convenient for those who should desire to see firsthand how the other side thinks. I wonder. Have you written to all the owners of search engines and demanded that they stop finding your page and linking to it?

28 Jun 2000

I just read the email war between yourself and Ms. Chlap in the cosmobiology comments section. Her insistence that you remove the link to her site struck me as just plain silly, and her arguments supporting her position seemed extraordinarily illogical ... even for a cosmobiologist. In my view, a hypertext link is analogous to a bibliography reference, which pretty obviously does not violate anyone's IP rights.

*Anyway, I thought you might be interested in the following article (see URL below) which describes a legal precedent on the issue. The judge in *Tickmaster Corp. vs. Tickets.com* ruled that "[Hypertext linking does not itself involve a violation of the Copyright Act.](#)"*

Rob Long

28 Jun 2000

I think Veronica Chlap's letters are perhaps the funniest things I've read in a long time. Is she for real? Does she really think that another site's link is her intellectual property?

Clearly, she doesn't even understand how Internet links work, and that's the root of her problem. I suppose she thinks that when you take a photograph of someone, you're stealing their soul, too. Someone needs to sit down with her and draw her a nice colorful picture of how the Internet works. I wonder if they sell those "Internet For Dummies" books in Australia?

Hey, here's an idea for a fun project: Turn the cosmobiology page into a frameset, and link her page from the inner frame without the "target=_top" tag. Then she'll really get mad, thinking you stole her page outright.

Tony Fabris

reply: Cruel, cruel, cruel. No need to compound her problems.

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cosmology

Cosmology is a branch of metaphysics concerned with the nature of the cosmos, i.e., the universe.

Cosmology is also a branch of astronomy that is concerned with scientific theories of the origin, structure, and space-time relationships of the universe.

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Last updated 12/30/01



[cosmobiology](#)

[A Course in Miracles](#)



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[Investigating the Power of Prayer A San Francisco researcher looks into whether prayer can heal even if the person doesn't know he's being prayed for](#)

prayer

*If the sick recover because they pray or are prayed for audibly, only petitioners should get well. --Mary Baker Eddy**

*Change only takes place through action, not through meditation and prayer. The Dali Lama**

Q. "When did you realize that you were God?"

A. "While praying. I realized I was talking to myself."

--The 14th Earl of Gurney (Peter O'Toole), who has the delusion that he is Jesus Christ in [The Ruling Class](#)

Prayer is attempted communication with supernatural beings (SBs) such as God. The word derives from a 14th century French word (*preiere*) meaning *to obtain by entreaty*. The most common use of the word *prayer* is *asking an SB for some favor*. This type of prayer is called *intercessory prayer* because it is done to ask an SB to intercede on behalf of oneself or someone else. There are some people who believe that such prayers are effective in curing diseases, reducing crime, defeating enemies, and winning high school football games. Some religions require parents to ignore medical treatment for their children, even if to do so is likely to prove fatal, in favor of prayer, e.g., Congregants of Church of Christ, Scientist, the Followers of Christ Church, and the General Assembly and Church of the First Born.* (These religions may not ban medical treatment altogether, but they try healing prayer first, a practice which sometimes proves fatal to their children.) The prayer of such people, however, is not *intercessory* prayer, but the prayer of total submission to the will of God, and [faith](#) that whatever happens only happens because God wills it. Such was the belief of the founder of Christian Science, Mary Baker Eddy (1821-1910), expressed in *Science and Health with Key to the Scriptures* (1875), the Bible of faith healing.

For an SB to intercede would be for a being from the supernatural world to cause things to happen in the natural world that would not happen naturally. This might sound like a good thing. After all, who wouldn't like to be able to contradict the laws of nature whenever it was convenient to do so? However, there are at least two reasons for believing that beseeching an SB to intervene in the natural course of events is absurd.

SBs, if they exist, would not be SBs if anything mere humans or other earthly creatures did could please or displease them. [Epicurus](#) made a most elegant argument centuries ago demonstrating this point. He argued persuasively that men make their gods in their own image rather than the other way around ([anthropomorphism](#)) and that the gods would not be perfect if our antics or

pleas could affect them in any way. Mary Baker Eddy obviously agreed with Epicurus, for she asked rhetorically, "Do we expect to change perfection?"* and asserted "God is not influenced by man."*

Secondly, and more importantly, if SBs could contravene the laws of nature at will, human experience and [science](#) would be impossible. We are only able to experience the world because our perception of it is orderly and lawful. If SBs could intervene in nature at will, then the order and lawfulness of the world of experience and of the world science attempts to understand would be impossible. If that order and lawfulness were impossible, then so would be the experience and understanding of it.

[David Hume](#) gave an elegant argument on [miracles](#) that applies to intercessory prayer (IP); for, by asking an SB to intervene in the ordinary course of natural events one is requesting an SB to perform a miracle. As Hume argued, to believe miracles have been witnessed is to go against all one's experience that there is an inexorable order and lawfulness to our sense perceptions. All our rules of reasoning are based upon this experience. We would have to abandon them to believe in miracles. Likewise, we would have to abandon any hope of experiencing, much less understanding, the world we perceive, if it were possible that any event could follow any other event based on the will of SBs. Only if our experience of events following other events is constant and consistent can we perceive and understand the world. And, if you don't like Hume's approach, there is [Kant](#)'s: only if we experience events as causal can we have any experience at all.

Testing causal hypotheses would be impossible if SBs could interfere with the regular course of nature. Scientists test causal hypotheses. Thus, for a scientist to do a causal test on intercessory prayer would be absurd. Then what are we to make of those scientists who design [controlled, double-blind studies](#) to test the effectiveness of IP? For example, what should we make of Elisabeth Targ's study on "distance healing"? The [National Institutes of Health](#) granted Targ \$243,228 as the first installment on what is likely to "amount to more than 2 million dollars of federal funds over the next few years." She is recruiting "healers" for her study. Here are [her requirements](#):

1. Five years experience as a healer (meaning that close to half of their professional time has been spent providing energy healing, spiritual healing, prayer, or shamanic healing to individuals who are not family or close personal friends).
2. At least 10% of their healing work is done at a distance (not in person).
3. They have worked with people with AIDS or cancer in the past.

Targ's study of the effectiveness of prayer on healing seems to be self-refuting. That is, if God were to answer prayers and heal some patients but not others, depending upon which patients had prayers said for them, then we could never know whether anything occurred due to natural causes or due to divine intervention. No causal study could rule out the possibility that its results were not due directly to God interfering with the course of nature. In short, it would be pointless to do causal studies, and hence, pointless to study whether prayer is effective in healing.

There are other problems, as well. Those who are not healed may not have died due to natural causes; it is always possible that some malevolent but powerful SB interfered with natural processes and caused the deaths. Once you introduce the possibility of SBs being the cause of events, there is no justification for assuming that only God can be that cause or that God only interferes when prayers are involved. In any case, if God is infinitely perfect, it would be impossible for Him to be affected by our requests or desires. Thus, there are logical, scientific, and metaphysical reasons for not seriously investigating such a notion as the healing power of prayer. The idea is logically contradictory, scientifically preposterous, and metaphysically demeaning. It requires God to be perfect and imperfect, it makes a mockery of the notion of scientific tests of causality, and it belittles the Omnipotent Infinite God, if such exists.

So, why are such studies being done and being published in "reputable" scientific journals? For example, *The Archives of Internal Medicine* (October 25, 1999), a publication of the American Medical Association, published a paper entitled: "A Randomized, Controlled Trial of the Effects of Remote, Intercessory Prayer on Outcomes in Patients Admitted to the Coronary Care Unit." Five M.D.s, two Ph.D.s, one M.A. and one doctor of divinity signed their names to this peer reviewed paper. One of the more interesting things about this paper is that even though the authors found no significant difference in time spent either in the hospital or in the coronary care unit for the experimental and control groups, they still managed to come up with some sort of scoring system (what they call a "CCU course score") that satisfied them that the group that was prayed for didn't suffer as much as the no-prayer group!

The study took place at the Mid America Heart Institute in Kansas City, Mo., over a 12-month period. There were 466 patients in the the experimental (prayer) group and 524 in the control (usual care) group. The patients were randomly assigned and prayed for by five of randomly assigned (from a pool of 75) intercessors for 28 days. The prayer was to be for "'a speedy recovery with no complications' and anything else that seemed appropriate." The intercessors knew only the first names of their victims, excuse me, subjects, and had to believe in the efficacy of prayer, among other things.

Despite the fact that the prayers were aimed at a speedy recovery with no

complications, the authors did not consider it important that there was no significant difference in either hospital or coronary care unit stay between the prayer and control groups. William Harris, Ph.D., concluded that "prayer *may* be an effective adjunct to standard medical care" (emphasis added to the weasel word). He could just as well have concluded that prayer *may not be* an effective adjunct to standard medical care.

The authors claim that "it was anticipated that the effect of prayer was unlikely to be evident in any specific clinical outcome category (e.g., the need for antibiotics, the development of pneumonia, or the extension of infarction), but would only be seen in some type of global score." Why a specific outcome, like length of time in the hospital or death, was considered irrelevant is unclear. The researchers do admit, however, that the CCU score they devised was "intuitive" and "has not been validated."

The authors write:

Since the score itself is only an estimate of overall CCU course, there is no known way to ascribe a clinical significance to it, other than to say that as a group, the patients in the prayer group "did 10% better." The score should be viewed only as a summary statistic designed to detect the impact of a mild global intervention on overall health in large groups, not in individual patients.

If they were honest, the authors would have concluded: **Study Shows Prayer Does No Harm!** Dr. Harris and his colleagues nosed around with the data until they found a list of factors that made it appear that the group receiving prayers fared better than the group that didn't. This isn't even junk science; it's joke science.

Dr. Harris is in good company, however. According to the University of Maryland, [John A. Astin, Ph.D.](#), assistant professor in the School of Medicine's Complementary Medicine Program, analyzed 23 clinical studies involving prayer, [therapeutic touch](#), and some other "unconventional forms of spiritual intervention" and found that 57 percent of the studies showed a positive impact on the patients. "Statistically speaking, the figure of 57 percent is highly significant," says Astin. "This is far more than one would expect to see by chance alone." How he came to this conclusion is anybody's guess. Most published studies find a [positive effect](#). Astin's devotion to science seems evident in his statement: "There is certainly no evidence that attempts to heal from a distance cause any harm."[*](#)

praying for pregnancy

The [Journal of Reproductive Medicine Online](#) (vol 46. no. 9, September 2001) published an article called "Does Prayer Influence the Success of in

Vitro Fertilization–Embryo Transfer? Report of a Masked, Randomized Trial" by Kwang Y. Cha, M.D., Daniel P. Wirth, J.D., M.S., and Rogerio A. Lobo, M.D. The answer, say the authors, is "yes, quite a bit." For example, "The IP [intercessory prayer] group had a higher pregnancy rate as compared to the no-IP rate (50% vs. 26%, P=.0013)." We expect this kind of stuff from the ["alternative" health/energy medicine folks](#), but not from "real" scientists.

I don't question that the researchers were able to establish a "statistically significant difference" between the IP and no-IP groups. The researchers went to quite a bit of trouble to do their [controlled, double-blind](#) experiment. They even had the one's doing the praying in a different country from those getting the in vitro fertilization. One thing they didn't do, however, was define "prayer" or explain how it might influence anything in the universe, much less the outcome of their little experiment. Nor did they address the issues noted above. If prayer works by influencing God to influence the outcome of an experiment, then God can interfere with the laws of nature at any time. If God can interfere with the laws of nature at any time, then no controlled, double-blind study can be sure of the meaning of whatever outcome results. Any result could be the result of direct influence by God. In other words, the assumption the study is based on is self-defeating. No science at all would be possible if God could be interfering with the laws of nature at will. Science requires a backdrop of lawfulness in Nature in order to discover any causal connection between anything and anything else.

What has happened to scientific research when magical thinking is considered within the bounds of reasonable empirical study?

Science or Religion?

These IP studies are what is passing for *scientific* study these days. What are we to make of it? At the very least, I think it is safe to say that these studies are not done out of scientific curiosity and are most likely done out of some sort of misguided religious zeal.

Another plausible explanation for this pathetic attempt to find empirical support for religious faith is that there is a great deal of money around to support this kind of study. There are private foundations ready to throw money towards anyone who can show how science supports religion. For example, there is the [Templeton Fund](#), the [PewForum](#), and the [Fetzer Institute](#), to name just three. Government money is also available and apparently in large quantities. Can anyone really justify giving Elizabeth Targ \$2 million of taxpayer's money to study the "distance healing" of shamans?

As more money becomes available from both the federal government and from private donors for the study of the health benefits of prayer, we can expect more institutions like Harvard Medical School to be sponsoring events like its sixth annual [Spirituality and Healing in Medicine](#) conference. The

event brings together several hundred health professionals, clergy members, social workers and insurance providers "to discuss the integration of mind/body medicine into mainstream health care."

[Dr. Harold Koenig](#), founder of the Center for the Study of Religion/Spirituality and Health at Duke University Medical Center in Durham, N.C., claims that there have been about 1,200 studies on the healing power of faith and the health effects of spirituality. Koenig thinks these studies have proved such things as that people who frequently attend religious services have lower death rates, are more likely to stop smoking, exercise more, have more social contacts and stayed married longer than those who do not. Koenig, however, seems to be uninterested in the fact that these studies don't take into account that people who attend religious services are necessarily more healthy than those who don't, since those who can't because they are too ill to attend, don't attend. Only those who are healthy enough *can* attend. There may well be a causal connection between being healthy and attending religious services but the evidence doesn't demonstrate that spirituality causes good health.

[Dr. Herbert Benson](#), conference founder and president of the Mind/Body Medical Institute at Beth Israel Deaconess Medical Center in Boston, claims that "60 percent of physician visits are due to stress-related illnesses that can be remedied or improved with the physiologically soothing effects of chanting and [meditation](#), or 'the relaxation response'." One can see why insurance companies would be drooling over such claims. If they are true, less money will have to be shelled out for medical services. Most sick people can just stay home and chant or meditate instead of making an office visit or using prescription drugs. Benson claims that prayer

...even works for agnostics. The body possesses a physiological response to the repetition of a phrase or action. You can leave belief up to the patient. They can say 'Hail Mary, full of grace,' 'Shema Yisroel,' or 'Om,' but when they evoke this response they feel more spiritual.

When they feel more spiritual they get sick less, he says. Not everyone agrees, however. [Richard Sloan](#) of the Columbia University College of Physicians and Surgeons in New York says that he is "troubled by the uncritical embrace of this trend by the general public, individual physicians, and American medical schools" to link prayer with health. Sloan and several colleagues criticize the studies cited by Koenig and Benson, saying that the studies "have not been well designed, produce vague conclusions, and generate sometimes conflicting results."

One such study was led by [Dr. Amparo Castillo-Richmond](#), assistant professor of Medicine at Maharishi University of Medicine College of Vedic Medicine, home of [Transcendental Meditation](#) (or is it Transcendental

Medication?). The study found that of 60 African-Americans who stayed in a program for from 6-9 months, those who meditated (using TM) "showed a significant decrease of -0.098 mm (95% CI -0.198 to 0.003 mm) [of carotid intima-media thickness (IMT)] compared with an increase of 0.054 mm (95% CI -0.05 to 0.158 mm) in the control group (P=0.038, 2-tailed)." The study used TM. Advocates of TM claim that TM can only be learned by studying with TM masters. Thus, there is an economic interest in arriving at these results. That in itself does not invalidate the study, but it should make one cautious of accepting on faith that proper protocols and controls were used throughout the study. In any case, Castillo-Richmond says that "We expect to use this treatment as an adjunct to current pharmacological therapies. We don't want the patient to think they can replace current medical therapies with this type of meditation."^{*}

The TM study may be statistically significant but how that translates into a significant change in health is not clear. Do people who meditate for 40 minutes a day live an extra minute for every minute spent meditating? If so, then what's the advantage of meditating? Do people with a coronary IMT that is 0.15 mm larger than others suffer a significantly greater number of heart attacks? I don't know, but it seems to me that at the very least those doing these kinds of studies should make a clear distinction between scientific studies and those which abandon the assumption upon which all science and experience is based upon. The latter include all studies on intercessory prayer.

On the other hand, if I were a cynic I would say that these faith-healing "scientists" are knowingly selling false hope. They know they are lying but they believe that their lies relieve anxiety and make people happier in their sickness. And, in some odd way, perhaps they believe they are doing God's work.

See related entries on [curse](#), [miracles](#), [pious fraud](#), [positive-outcome bias](#), [psychic surgery](#), and [substance abuse treatment](#).

further reading

[reader comments](#)

- [Some Thoughts about Faith Healing](#) Stephen Barrett, M.D.
- [The Facts About Faith Healing](#) by George Nava True II
- [Distant Healing and Elisabeth Targ](#) Martin Gardner
- [The Power of Prayer](#) Nicholas Humphrey
- [If Looks Could Kill and Words Could Heal](#) by Robert Baker (review of Larry Dossey's *Healing Words: The Power of Prayer and the Practice of Medicine* (Harper, 1993))
- [Gary Posner's review](#) of Larry Dossey's *Healing Words: The Power of Prayer and the Practice of Medicine* (Harper, 1993)

- [Reality Check The Science of Prayer and Evidence Doesn't Support Health/Religion Claims](#) by Victor J. Stenger
- ["Is there scientific evidence that intercessory prayer speeds medical recovery?"](#) A Debate Transcript of the March 13th, 2001, Debate Between William Harris, PhD, Saint Luke's Hospital, Kansas City, MO, and Irwin Tessman, PhD, Purdue University, West Lafayette, IN
- [God in the CCU? A critique of the San Francisco hospital study on intercessory prayer and healing](#) Gary P. Posner, M.D.
- [Another Controversial Effort to Establish the Medical Efficacy of Intercessory Prayer](#) by Gary Posner, MD
- [Studies on Prayer and Healing Flawed](#) - Infidels.org
- [Catholic Encyclopedia entry on "prayer"](#)
- [Is Prayer Clinically Effective?](#) David G. Myers

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

[Randi, James. *The Faith Healers* \(Buffalo, N.Y.: Prometheus Books, 1987\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

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[A Course in
Miracles](#)

reader comments:

A Course in Miracles

13 Nov 1997

*I did want to express my personal experience with **A Course in Miracles**. I have studied the material very intensively for about 5 years. It would be absolutely impossible to write any kind of a summary with any understanding unless you have spent a great deal of time and especially practice with the material. To scan the book and pick out a few passages and then announce to the whole world what it says does enormous injustice to this incredibly beautiful and life changing material.*

Reply: Why distort what I have done? Why twist my words into something they are not and do not claim to be? I do not say any more about the content of the book than that it calls for more forgiveness and less suffering. I focus on the deluded or dishonest method your hero uses to get her message across. If she has a problem with Christianity why doesn't she have the courage to come out and say it? Christianity is not a religion of forgiveness and it has always preached the necessity of suffering. If she thinks this is a bad message, why doesn't she come right out and say it, instead of pretending that the book was dictated to her by an Inner Voice.

The Course is in its entirety a perfect practice of forgiveness. It is a step by step process by which you break down the walls of separation between yourself and your fellow man. And it works. It does not claim exclusivity or specialness, it is not a religion or a cult. It is a completely individual practice of learning to love your fellow man through forgiveness. It is a book in complete self-responsibility. And that is what it is. How could anyone criticize that?

Reply: It is an allegedly channeled book. That is where I aim my criticisms. I have no problem with a message of forgiveness. I can tell you straight out that a person who does not know how to forgive will be miserable all her days. As Spinoza said: "To understand is to forgive." I don't need to pretend to hear voices to get this message across, nor do I think that the voices give the message any validity. The validity is in the utility of the message, not in the self-anointed messenger.

I have gone from being a very selfish, self-centered, angry, irritable person who blamed everyone one else for my problems to someone who has complete peace and many moments of great joy. I feel joined and connected with my

fellow man. I see innocence where I used to see evil. The world has not changed, but I look at it differently. How could anyone criticize a practice that leads to this except through ignorance and lack of understanding.

reply: Again, I reiterate that I do not criticize the practice of forgiveness. You may not be selfish, etc., anymore, but you certainly have not learned how to treat fairly another's criticisms. I guess I just don't understand why anyone would want to make a business out of encouraging others to be more forgiving and less troublesome. To behave with kindness and sympathy towards others seems to me such an obviously wise thing to do that I guess I am incapable of understanding the need to sanction such behavior with any higher authority, whether that authority be an inner voice or a multitude of like-minded reformers.

I urge you not to be so "skeptical" - open your eyes and your heart to everything that speaks of good out there.

Susan Sturm

reply: And I urge you to continue being unselfish and loving. I will try to do the same.

5 Nov 1997

*Although I am a theist, I cannot help but cringe over what passes for 'spiritual truth.' In applying the techniques found in *A Handbook of Hypnotic Suggestions and Metaphors*, ed. by D. Corydon Hammond, Ph.D. (W.W. Norton & Co. New York, 1990) to the 'channeled', *A Course in Miracles*, it is so blatant that ACIM is nothing but the presentation of gnosticism in a self-hypnotic script.*

Helen Schucman, Ph.D., the 'channeler', both taught psychology and maintained her own clinical practice. She would have knowledge of gnosticism and Christianity, and most assuredly would have practiced hypnotherapy. True, she felt or believed she was channeling "the Voice", but "the Course" obviously lacks original content.

Or maybe, I'm wrong and Jesus was a hypnotherapist after all. It's not the gnosticism I object to, it's the slick packaging of circular logic, self referencing definitions, redundancy and needless repetition to get the message delivered to the "unconscious". Advertising, propaganda, and seduction use the same techniques. Old Fred Nietzsche was right in comparing the uncritical public to sheep. I may be a slave, but I am fat, easily entertained, and have a convenient god to follow. God bless the remaining skeptics, may this small band multiply.

Sarah Nordholm

reply: I can't speak for other skeptics, but even blessings from theists are welcome here.



[A Course in Miracles](#)

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Last updated 11/20/02

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IQ and race

The three great strategies for obscuring an issue are to introduce irrelevancies, to arouse prejudice, and to excite ridicule.... ---Bergen Evans, *The Natural History of Nonsense*

"IQ" stands for "intelligence quotient." A person's IQ is supposed to be a measure of that person's intelligence: the higher the IQ number, the greater the intelligence. This is inaccurate, however, since it assumes that there is only one kind of intelligence. Most people recognize that there are some people with fantastic memories, some with mathematical minds, some with musical genius, some with mechanical expertise, some with good vocabularies, some good at seeing analogies, some good at synthesizing, some at unifying, etc. Some people excel at more than one of these behaviors. It would be more accurate to speak of human *intelligences* than of intelligence. An IQ test, therefore, should be considered a measure of *some* kinds of intelligence, but not all. The most accurate claim one can make about an IQ test is that it measures IQ.

The research on IQ and race by [Arthur Jensen](#), [William Shockley](#), Herrnstein and Murray (*The Bell Curve*) and others have not found any significant correlations between race and intelligence. They have found correlations between race and IQ, which has been used to support the notion that some races are inferior to others.

The term 'race', however, is even more problematic than the term 'intelligence.' While all humans are members of the human race, few deny that there are many races or that there are obvious physical and cultural differences among different ethnic groups. But it has become a widespread belief that race is genetically determined in much the same way as, say, eye color. Having a certain gene or set of genes means you have blue eyes. Likewise, it is thought, having a gene or set of genes makes one Caucasian. However, there is no such thing as a racial gene or *set of race genes* any more than there is such a thing as an intelligence gene or set of intelligence genes. This does not mean, of course, that a person's genetic makeup is not a significant factor in *individual* intelligence in particular areas or in physical features associated with different races, such as skin color, breadth of nose, shape of eyes, etc. It should be obvious, however, by the tremendous variation in intelligences among individuals of any race, that environment is a much more significant determinant of racial features than it is of intelligence. This seems to imply that whatever genetic differences exist among the races are most likely due to natural selection and sexual selection. It also seems to imply that the notion of a "pure" race is an absurdity. Even if the fundamentalists are right and there was an original Adam and Eve, no race

can claim to be "pure." Each race evolved according to natural processes such as natural selection.

some race data

"There's about a 15 percent genetic variation between any two individuals," according to science writer Deborah Blum. "Less than half of that, about 6 percent, is accounted for by known racial groupings....A randomly selected white person, therefore, can easily be genetically closer to an African than another white" (Blum).

Joseph Graves, an African-American evolutionary biologist at Arizona State University-West in Tempe, notes that most people and researchers who try to establish correlations between various natural abilities and skin color are not geneticists.

These people don't know evolutionary genetics. They talk about interesting issues in race and biology. And since, I think, there are no real races, I wonder what these issues are. It makes me angry that I have to take time from my research (on the genetics of aging) to argue about something that shouldn't even need to be discussed (Blum).

C. Loring Brace, an anthropologist at the University of Michigan, claims that "race is a four-letter word with no basis in biological reality" (Blum).

Of course, physical features such as skin color, shape of eyelid, color of eyes, texture of hair, etc., are genetically determined. It is also true that an individual's capacity for any particular kind of intelligence is largely dependent upon genetic factors. What isn't true is the notion that whole races of people have *sets of genes* which make them as a group more intelligent than other races. The genes which affect musical talent, the power to visualize or to think abstractly, for example, are not established as the same ones which affect those characteristics which are associated with being Caucasian, Mongoloid or Negroid. If you want to find out why Asians are over-represented in California's universities while blacks and Hispanics are underrepresented, you will probably search in vain for a genetic answer. Those who are interested in such things would do better to look at family structure, ethnic traditions, and social conditions.

spurious correlations

To correlate race and intelligence in the name of science and have the world pay attention to you is no small feat. Could it be the numbers, the statistics, which impress people? Not likely. Even the most sophisticated numerical analysis which showed a correlation between *phlogiston* and *ether* wouldn't get a hearing today. So, why does the race/intelligence bit get a hearing? How

can any rational person take seriously notions such as the *Aryans* or *racial purity*? Some probably assert these things as a matter of establishing power. Being a member of a pure race is a quick and simple way to establish one's superiority. Membership is easy. You're born into it. Being the right race gives one a *right* to superiority and justifies inequality, regardless of one's individual deficiencies. It also justifies racism, since if inferior people are succeeding they must be cheating the truly superior people out of their just inheritance. It also justifies believing things about oneself that have no objective validity. A truly inferior being can justify thinking of himself as superior because of his race membership. He can rationalize any failures or inadequacies and attribute them to the unfair advantage given to those he considers inferior. He can even fool himself into thinking his non-white skin is white and that he somehow deserves to share in the accomplishments of anyone in his "white" race. (I have been expected to check "white" on a number of forms concerned about my "race", although when compared to a white sheet of paper, my skin color is clearly not white, but light brown. I have met very few "white" people who are white. At least they are not white in the skin areas generally exposed in public.)

However, even if there were such a thing as a pure race, that fact would not justify considering that race superior to any other. One might even make a case for the *inferiority* of such a race. Nature clearly favors variation. Chances of survival under varied and changing conditions increase as the species is more varied. Too much similarity could mean racial disaster, extinction; while variation could mean the survival of some members of the species if disaster should strike. Likewise, a species with several varieties of intelligences, as well as individuals with varying degrees of those intelligences, could well be a sign of *superiority*, at least in terms of the survival potential of the race.

Are the studies of no value that show African-Americans or Asians doing differently than so-called "white" Americans on standardized IQ tests? That is, is the work of people like Herrnstein and Murray worthless? No. It is valuable data, but it is also explosive data because of our racist political history. Such data will inevitably be exploited by white supremacists, twisted for their own political goals and used not to improve racial relations in America but to encourage further racial strife. Such data consists mainly of correlations. And while correlations should convince orthodox empirical scientists of nothing, to the racist researcher, correlations are the heart and soul of their work. The furor that *The Bell Curve* caused died down quickly because there occurred an ongoing saga which usurped its political and entertainment value: the O.J. Simpson trial. In fact, Herrnstein and Murray, in chapter after chapter, call for social reforms to improve the status of blacks in America. They may be disingenuous calls, but they are nevertheless inconsistent with the notion that the social condition of blacks in America is due to genetic factors. If genes led to the black underclass of young thugs who murder each other on a daily basis in almost every city in America, then there would be no point in calling for educational or vocational programs, no point in urging a change of focus for black men and women in their families, as

even the black supremacist Louis Farrakhan has recommended with his million man march.

One can't deny that the majority of young men killing each other in gang wars are minorities. But one can deny that the reason they are so violent and immoral is because of their race. That is false and an insult to the majority of blacks and other minorities who are decent, law-abiding persons. One can't deny that minorities are undereducated as a group and underrepresented in our colleges and universities, and in the professions and skilled trades. But one can deny that the reason minorities are underrepresented is because their race makes them genetically inferior and incapable of competing with "white" America. It is true that many minorities are not in college or working as doctors or lawyers or teachers or auto mechanics, etc., *because of their race*. They have been discriminated against and deprived of educational and employment opportunities *because of racial prejudice*.

It is possible that some day we may be able to look at people of different races and see them as human beings without losing sight of what is special and unique about racial or ethnic membership. We do not need to be colorblind, nor should we strive to ignore racial differences. But they should be seen in a proper perspective: significant in forming us, but irrelevant to our status as human beings capable of both the highest moral and intellectual behavior and of bestial depravity and moronic incompetence.

In the meantime, we should heed Peter Singer's words:

...the genetic hypothesis does not imply that we should reduce our efforts to overcome other causes of inequality between people.

...the fact that the average IQ of one racial group is a few points higher than that of another does not allow anyone to say that all members of the higher IQ group have higher IQs than all members of the lower IQ group....

And, having a higher IQ does not justify racism (Singer, 1993), or any other kind of -ism, for that matter.

further reading

[reader comments](#)

- [Does Race exist?](#) Dr. Loring Brace of the University of Michigan says "no" and Dr. George Gill of the University of Wyoming says "yes"

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 invocation

iridology 

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naturalism

Naturalism is a [metaphysical](#) theory which holds that all phenomena can be explained mechanistically in terms of [natural](#) (as opposed to supernatural) causes and laws. Naturalism posits that the universe is a vast machine or organism, devoid of general purpose and indifferent to human needs and desires.

Naturalism is often confused with [atheism](#), [materialism](#), [logical positivism](#), [empiricism](#), [determinism](#) and [scientism](#).

The Deistic founders of the United States of America were advocates of naturalism. Deism admits a transcendent creator of the universe, but denies that the creator interferes with Nature. Hence, understanding God is unnecessary to understanding the world.

[Pantheistic](#) philosophies--such as that of the ancient [Stoics](#), John Scotus Eriugena (Ireland, 9th century), [Giordano Bruno](#) (Italy, 16th century), and [Spinoza](#) (Holland, 17th century)--are naturalistic. In pantheism, God *is* the world.

Thus, naturalism neither denies nor affirms the existence of God, either as transcendent or immanent. However, naturalism makes God an unnecessary hypothesis and essentially superfluous to scientific investigation. Reference to moral or divine purposes has no place in scientific explanations. On the other hand, the scope of science is limited to explanation of empirical phenomena without reference to forces, powers, influences, etc., which are supernatural.

The difference between naturalistic and supernaturalistic views in Western philosophy might best be understood by noting that the former favors mechanistic explanations, while the latter favors teleological ones. Mechanistic explanations are *dysteleological*, i.e., they make no reference to purposes or design, except metaphorically as in biology (e.g., the heart was designed to pump blood).

The difference between mechanistic and teleological views may best be understood by considering a few examples.

the sex drive

From a teleological point of view, the sex drive is designed to reproduce the species. The pleasure which accompanies sex is the main inducement to carry out the purpose of reproduction. If sex were generally painful, it would be

avoided by most members of the species, and hence the species would become extinct. Some Catholic theologians maintain that to engage in sex for the purpose of reproduction is the only proper sexual motive. To frustrate the reproductive purpose of sex is to act contrary to divine purpose and is immoral. Birth control and homosexuality, therefore, are morally wrong *because they are unnatural*.

From a mechanistic point of view, the sexual urge is purposeless. It was not designed to motivate animals to reproduce. Rather, animals with a strong sexual drive reproduce, and hence flourish. A species with a weak sexual drive would be unlikely to survive. According to this view, the purpose of sex can't be frustrated, since sex, in general, has no purpose. (Of course, the *desire* to have sex with a particular person is purposive. That *is* the purpose: to have sex with a particular person, whatever gender that person might be.) Since nothing has been designed to fulfil a particular purpose, moral goodness and evil cannot be determined by their being natural or not. Some other ethical principle, such as *utility*, must be invoked. In any case, naturalism does *not* imply that all things are good since all things are natural.

bee pollination

From a teleological point of view, bee pollination of orchards is purposive and part of a design. To the mechanist, bees just do their thing and, as a result, orchards get pollinated. If no animals existed which do what bees do, orchards wouldn't exist. The world would be a different place, but it would still be a world. Different mechanisms mean different worlds. The choice is not between this world or none at all, but this world or some other one.

pedophilia

To the teleological supernaturalist, pedophiles and sexual predators exist for some sort of divine purpose. To the mechanistic naturalist, child molesters and child murderers are purposeless. Their desires may be natural but that does not mean that they should be fulfilled. Both the supernaturalist and the naturalist hold pedophiles and sexual predators accountable for their evil behavior. The naturalist, however, need not feel any need to try to explain why such evil exists. Some naturalists might seek causal explanations which deny that evil is chosen behavior by evil persons with evil desires. All naturalists might agree that the *desires* themselves are explicable entirely by causal mechanisms outside the scope of personal responsibility. But, not all would agree that acting on the desires is completely explicable without reference to the freedom and responsibility of the evildoer.

What is the purpose of evil?

The supernaturalist, with his moral and spiritual purposes inherent in every aspect of reality, must come up with some sort of explanation for the

existence of evil. The branch of theology which tries to explain such things is called *theodicy*. In theodicy it is considered reasonable and acceptable to say of evil, "the ways of the Lord are mysterious, indeed." Or, as God allegedly said to Job when he dared to ask "Why me?": "*Hath thou an arm like the Lord?*" In short, "I'm God; I don't have to explain myself to anybody." Evil exists and since God is good you can be sure that there is a good reason for evil. Take it on faith.

teleology according to Spinoza

Spinoza maintained that teleological thinking represents the primitive thinking of our pre-scientific ancestors. The pursuit of "final causes" led nowhere in the human quest to understand Nature. Only when humankind gave up the anthropomorphic way of thinking, which understands the weather, geology, physics, etc., in terms of divine purposes, could progress in knowledge of Nature be made. History has proved Spinoza right. Teleological theories, such as supernaturalism, are scientifically superfluous.

On the other hand, Spinoza's attack on teleology was complete: he did not believe that human behavior was to be explained differently from anything else in Nature. Human behavior is to be explained in terms of mechanistic causes, just as the behavior of all natural phenomena are to be explained. Humans are no more free to change their behavior than falling stones are free to change their direction. And neither humans nor falling stones are responsible for their behavior or movements. However, Spinoza's denial of [free will](#) is no more a necessary consequence of naturalism than is his pantheism. That is, neither [determinism](#) nor [pantheism](#) is entailed by naturalism.

See related entry on [science](#).

further reading

- ["Naturalism"](#) entry in *The Catholic Encyclopedia*
- [A Defense of Naturalism by Keith Augustine](#)

[Brooke, John Hedley. *Science and Religion: Some Historical Perspectives* \(Cambridge University Press, 1991\).](#)

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empiricism

Empiricism is a theory which holds that the origin of all knowledge is sense experience. The term also refers to the method of observation and experiment used in the natural sciences. Often, empiricism is contrasted with *rationalism*, a theory which holds that the [mind](#) may apprehend some truths directly, without requiring the medium of the senses.

Empiricists tend to emphasize the tentative and probabilistic nature of knowledge, while rationalists tend to be dogmatic and assert they have found a method to discover absolutely certain knowledge. Empiricists see [philosophical skepticism](#) as limiting what the human mind can hope to accomplish and as a guide to those areas of inquiry we can usefully apply our talents towards. Rationalists see skepticism as something which must be refuted on every count in order to establish a sure footing for absolutely certain knowledge.

There is great irony here since historically it was the rationalists (Plato, Descartes, Spinoza, Leibniz) who had the vision of a knowable universe, of laws governing all the parts of the whole, of a unified whole, of minds made for knowing this universe, which is essentially today's vision of science. On the other hand, the empiricists' (Locke, Berkeley, Hume) vision of subjective perceptions limiting knowledge, of the need for faith to believe anything beyond immediate perceptions, of minds incapable of knowing much of anything, of dire skepticism, is the vision of anti-science.

See related entry on [naturalism](#).

further reading

- "[British Empiricism](#)" in the *Internet Encyclopedia of Philosophy*

[Popkin, Richard H. and Avrum Stroll. *Skeptical Philosophy for Everyone* \(Prometheus Books, 2001\).](#)



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reader comments:

creationism

29 Dec 2000

Dr. Robert Gentry, Geophysical Scientist and author of Creation's Tiny Mystery. Read the book then take up his challenge. Or do the laws of Empirical methodology only apply when they support your accepted belief system and not when they can seriously challenge them. How do you make a lie its most deadly.... Mix it with a little Truth. (Spiritually discerned)

David Taggart

reply: The real mystery is why Gentry continues to have followers such as yourself, David.

For those who may not have heard of [Gentry's big mystery](#), here it is in a nutshell:

Evidence that something is drastically wrong [with the scientific theory of the origin of the universe] comes from the fact that this basic evolutionary premise [viz., that the universe evolved to its present state only by the unvarying action of known physical laws] has failed to provide a verifiable explanation for the widespread occurrence of Po halos in Precambrian granites, a phenomena which I suggest are in situ evidences that those rocks were created almost instantaneously in accord with Psalm 33:6,9: "By the word of the Lord were the heavens made; and all the host of them by the breath of his mouth. For he spake, and it was done; he commanded, and it stood fast."

Several geophysicists have taken up the bait and studied the sites where Gentry got his granite samples and the specific type of granite Gentry used. They were not impressed. I refer you and other readers to an article by [Curtis Severns of the North Texas Skeptics](#), where he cites the following:

- Ellenberger, C.L., with reply by Gentry. R.V. 1984. "Polonium Halos Redux," *Physics Today*. December 1984. p. 91-92
- Hastings, R.J., 1987b, "Commentary on the polonium halos of R.V. Gentry," unpublished.
- Hunt, C. W., Collins, L. G., and Skobelin, E. A., 1992, *Expanding Geospheres, Energy And Mass Transfers From Earth's Interior* Calgary,

Polar Publishing Company, pp. 128-140: ["POLONIUM HALOS AND MYRMEKITE IN PEGMATITE AND GRANITE"](#) by Lorence G.

Collins February 3, 1997

- Osmon, P., 1986, "Gentry's pleochroic halos: Creation/Evolution," *Newsletter*, Feser, Karl D., Editor, v. 6, no. 1, Concord College, Athens, West Virginia
- Schadewald, R., 1987. "Gentry's tiny mystery, Creation/Evolution" *Newsletter*, Fezer, Karl D, Editor, v. 4, no. 2 & 3. Concord College. Athens. West Virginia, p 20.
- Wakefield, J. R., 1987-88, "Gentry's Tiny Mystery - unsupported by geology," *Creation/Evolution*, v. 22, p. 13-33.
- Wakefield, J. R., 1988, ["The geology of 'Gentry's Tiny Mystery,'"](#) *Journal of Geological Education*, v. 36, p. 161-175.

Wakefield (1988) concludes:

The geology of the sites at which Po halos are found clearly shows that Gentry's proof of instantaneous creation and a young Earth is nothing of the sort. Gentry's Po halos simply do not occur in primordial granites, but instead were formed in relatively young dikes that demonstrably crosscut older sedimentary and igneous rocks. Gentry claims to be an objective scientist but he has, in fact, ignored the very extensive published evidence that disproves his hypothesis. In addition, when confronted with this evidence he simply denies its existence. Such behavior is not characteristic of scientists, but of pseudoscientists.

In short, others more knowledgeable than I have already read the book and taken up the challenge, only to be ignored by the creationists. Apparently, you are correct. The creationists seem to think that, as you say, "the laws of Empirical methodology only apply when they support your accepted belief system and not when they can seriously challenge them." Gentry must have an abundance of spiritual discernment, for he seems to know well your formula: "How do you make a lie its most deadly.... Mix it with a little Truth."

30 Aug 2000

One question for you: If you are so positive that evolution is a fact and that you know (or have a theory) of how it happened, why are you afraid to introduce students to differing ideas? I thought the whole point of becoming a "critical thinker" was to weigh all the sides of an argument and decide for yourself what you believe to be the truth. By not introducing students to creation science along with evolution, you are implying that either 1) they are not able to make a wise decision for themselves, or 2) you are afraid that they might believe in a

theory that is not your own. Why not give them the opportunity to make the choice?

Jennifer

reply: What makes you say I'm afraid of introducing students to differing ideas? Just because I wouldn't give cooking instructions in my philosophy class doesn't mean I'm afraid of introducing my students to cooking. Cooking belongs somewhere else. So does religious instruction. So does the teaching about different creation stories. In fact, I think children should be instructed in public schools about the creation stories of many different cultures, but such instruction should be done in a world religions or cultural anthropology course, not a science course.

Jennifer replies

I thought that the origins of life on earth falls under the category of biology, which, if I am not mistaken, is a science.

reply: Well, you have part of it right. Biology is a science and the study of the nature and origins of living things falls under the category of biology, but the idea of special creation by a "Creator" is not scientific. You are making a false assumption when you assume that any theory about the origins of life is a biological theory. Only scientific theories about the origins of life are biological theories. Non-scientific theories about the origins of life are metaphysical theories. (You might take a look at the entry on [science](#).)

To make this easier to see, consider a metaphysical theory of, say, electricity. This theory might claim that invisible beings from another dimension carry electrical impulses on their invisible backs. They read our minds and carry electricity as if our belief in electrons, etc., were true. Thus, to us the world looks like there are electrons, etc., but in fact, the whole realm of electrical phenomena functions according to the will of these invisible beings. Such a theory should not be taught alongside the theory offered by modern physicists. Just because it is a theory of electricity doesn't make it a scientific theory of electricity. In science class, we should teach science. In the philosophy class we teach metaphysics.

Just because you don't agree that there is any "scientific evidence" for creation doesn't mean there is none.

reply: The notion of "scientific evidence" is not a simple one. You might think that you have scientific evidence if you can point to many things in the universe that seem to you to be (a) consistent with the theory of special creation, and are (b) explainable only by assuming a Creator. However, being able to fit facts to a theory is very easily done for almost any theory (see my entry on [confirmation bias](#)) and is no indication that the theory in

question is scientific. Furthermore, being scientific does not mean that a theory explains everything. If we gave up on a scientific theory every time something seemed puzzling to us and seemed "miraculous" or "a result of divine intervention", we wouldn't have any scientific theories left standing.

Scientists didn't think that the world was round for hundreds of years, but that didn't make them right, either.

reply: The fact that scientists err is irrelevant to the issue. It is not a matter of either (a) the way a particular group understands the Creation story in Genesis must be true or (b) some current scientific theory must be true. Both could be wrong, but that fact does not make them both scientific. Furthermore, the vast majority of those who believe God created the universe do *not* find the creation story in *Genesis* to conflict with the theory of evolution. But they recognize the difference between divine revelation and scientific discovery.

It would be somewhat hard for students to equate what they learn in a comparative religion class to what they learn in biology class about the origins of life. Why not teach them together?

reply: Why assume the students should "equate" what they learn in comparative religion and in biology any more than they should learn to equate what they learn in history and what they learn at Sunday school or at home? Don't tell me you would want children to study history and religion in the same class?

If you are concerned about the children being confused by being taught contradictory things in biology and comparative religion, you shouldn't be. The children will recognize that the one is taught as a science and represents the most reasonable beliefs at a given time, while the other represents the various faiths of many different peoples.

I would be more concerned about teaching my child that a story in *Genesis* says there is no evolution and that that story was given by God directly to the Jews who didn't even recognize Him when He came to save them. Why were they smart enough to get the first story right but not the second? If God had been talking to the Hebrews for thousands of years, how come they couldn't recognize Him when lived with them? That would confuse any child, to believe that such unreliable people could be the recipients of infallible truth.

Besides, some would argue that religion is taught in science classes already...the religion of humanism.

Jennifer

reply: True, some would say this....and they'd be wrong. To not teach the

viewpoint of one particular religion alongside science, history, etc., leaves it open for the student to pursue any religion in the universe. Only those who believe that theirs is the one and only true religion would think that one is promoting *humanism* (by which I suppose you mean *atheism*) when one is not teaching that religion alongside everything else.

Jennifer replies again

4 Sep 2000

There is only one statement in your answer worthy of a reply. The rest are proof that you, along with most "non-creationists" are simply unwilling to introduce students to alternative theories on the origins of the earth and life on it. The one statement is this:

"Don't tell me you would want children to study history and religion in the same class?"

Of course religion (or at least as it pertains to the cultures and history of the world) should be taught in a history class. Are you going to tell me that King David was not a historical figure? How about Nebucadnezzar and the other kings of Babylon? Pontius Pilate was a historical governor of Judah, and proof has been found that the Israelites did indeed pass through the land of Midian (now Saudi Arabia) in vast numbers. Even secular historians agree that Jesus was a real person. Not only Biblical figures, though. Confucius was a real person. Zoroaster was a real person. All these people and events are a part of history. Just because some hold them to be religious, doesn't mean that students shouldn't be taught who they were, what they taught, and how they affected the history of the world.

As for the rest, I realize that your site is for skeptics. But just remember, God himself calls you a fool for your beliefs: "The fool has said in his heart there is no God."

I feel pity for you and all your readers.

Jennifer

reply: You're too kind.

04 Sep 2000

Re Jennifer's argument that if you're not teaching creationism in science class, you're teaching humanism:

I know some people who believe little pink unicorns hold up the clouds (well, OK, not really). Now, if teachers refuse to teach this in meteorology class, does this mean they are really teaching the religion of non-little pink unicornism?

What about ignoring the science of astrology in astronomy class? Or reincarnation science in medical school? If I'm not a Kabbalarian philosopher, am I practicing the religion of non-Kabbalarianism? Do I have to fit my non-Kabbalarianism with my non-little pink unicornism into some religious world-view?

Atheism is not a religion. Creationism is not science.

Evelyn (blasphemous non-little pink unicornist)



[Creationism and Creation Science](#)

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Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

6

August 22, 1999. I received an anonymous e-mail today from someone identified only as RandiExpert@Hotmail.com, directing me to a WWW site devoted to attacking James Randi, Paul Kurtz, the False Memory Foundation, CSICOP, and Prometheus Books, while defending Uri Geller and someone called Riley G. The site, misleadingly called [The Truth About James Randi and others](#), is particularly vicious in its defamation of Randi, making slanderous if not libelous claims of child molestation in explicit, obscene terms. The others attacked are implicated in pedophilia, as well. For instance, Kurtz is said to be chairman of Prometheus Books, which is said to publish "books about children's sexual encounters with adults." The anonymous attacker does not mention that the book in question is titled [Children's Sexual Encounters With Adults : A Scientific Study](#). According to BookNews, the study

Assesses the social constructs of sexuality and examines the various motivations behind sexual encounters between adults and children, presenting the findings of two important research projects on pedophilia: that of C.K. Li, who conducted voluntary interviews with men who admitted to a sexual interest in young girls or boys; and that of D.J. West and T.P. Woodhouse (co-authors, with Li, of this volume), who questioned groups of adult males, both students and others, about their recollections of sexual encounters when they were boys (and compared the findings with those of a similar survey of women).

The implication is that anyone who would study pedophilia or children's sexual behavior, or be in any way connected to the publication of such a study, or challenge conventional wisdom about the traumatic nature of all sexual experience for children, or support any organization who has at least one member who does any of the above, is a pedophile and a child molester.

The deeper implication is that characters like Riley G, Uri Geller and their supporters may abandon argument and defense against charges of fraud, charlatanism, etc., and simply accuse their critics of being child molesters. Their hope would be that the masses are uncritical and unknowing, would assume that where there's smoke there's fire, and would then ignore the skeptics and their claims. Above all they would hope that several bottom feeders in the mass media would pick up the story and try to make it another Monicagate. *Anyone* expressing skeptical views about the paranormal or creationism will be subject to this kind of defamation. I mention politically active creationists because these fanatical fundamentalists will use any means necessary to stifle criticism and attack any view they think implies that their

fairy tale about God and creation is false. If slander works for the paranormal frauds, you can be sure the politically active creationist charlatans will imitate them.

The offensive site is being hosted by [Freeyellow.com](http://freeyellow.com) whose e-mail address is tos@freeyellow.com

I filed a complaint with Freeyellow.com and within 24 hours the offensive anti-Randi site was removed. If you are interested in what was there, I suggest you write to the coward who will not identify himself but accepts e-mail at RandiExpert@Hotmail.com Perhaps he will expose himself.

August 11, 1999. Reuters reported today that the Kansas Board of Education has rejected evolution as a scientific principle. The 10-member board voted six to four to eliminate evolution from the science curricula.

The Kansas Board did not ban the teaching of evolution. Only the legislature has that kind of power. The Board simply deleted any mention of evolution and the Big Bang theory from the science curriculum and from the materials used to test graduating students. [Creationists](#) such as Board Member Steve Abrams, a former head of the state Republican Party, hailed the decision as a victory in the war against evolutionists. Creationists want children to believe that God made them and every other species individually for a purpose. They do not want children to think that a divine power might be behind the Big Bang or evolution of species because that opens the possibility that God might not exist. Creationism maintains that God created everything, a belief which leaves no room for an explanation of the existence and nature of things without reference to God.

Creationists do not accept the fact that species evolved from other species. Nor do they accept Darwin's theory of natural selection, which asserts that individual members of species, as well as species themselves, survive and multiply if they find themselves within an environment that supports their survival and prosperity. Otherwise, they die and die out. Natural selection occurs without preference for some individuals or species over others, and appears to occur without purpose. Steve Abrams wanted to add to the science curriculum standards the assertion that "the design and complexity of the design of the cosmos requires an intelligent designer," but he was voted down.

Nevertheless, the Kansas Board recognized "micro-evolution" as a fact: natural selection *within* a species. Perhaps the six who voted for the new standards do not understand that natural selection within species was what stimulated Darwin to his general theory of evolution. Nor do they seem to understand that you can't have a *theory* of evolution without the *fact* of evolution (any more than you could have a theory of planetary motion without the fact of planetary motion). Scientific theories are explanations as to how things happen. You don't try to explain how something happened unless it happened. Natural selection is one theory as to *how* evolution happened. It assumes evolution is a fact.

Politically active creationists failed in their attempts to have creationism taught alongside evolution as a science. The Supreme Court ruled that compelling the teaching of creationism was tantamount to teaching religion, which state schools may

not do under the First Amendment right to freedom of religion. The so-called creation science movement, however, is not dead. They have just changed tactics. The goal now is to debunk evolution wherever possible, using any means necessary. One of their favorite tactics today is to blame all sin and crime on lack of proper Bible study and the teaching of "godless" theories such as natural selection and the Big Bang theory. Listen to one of the bright lights of this movement, Marc Looy of the creationist group Answers in Genesis. The Kansas vote was important, Mr. Looy said, because

students in public schools are being taught that evolution is a fact, that they're just products of survival of the fittest...It creates a sense of purposelessness and hopelessness, which I think leads to things like pain, murder, and suicide.

That there is no scientific evidence to support these claims is a matter of indifference to those who believe them. When science does not support their beliefs, they attack science as the handmaiden of Satan. I wonder what Mr. Looy has to say about [Christian Identity](#) (Buford Furrow Jr.) and the [World Church of the Creator](#) (Benjamin Nathaniel Smith), or Operation Rescue ([Randal Terry](#)) and other Bible-loving groups that preach hatred and inspire violence and murder. I wonder what Mr. Looy has to say about all the violence and evil going on around the world in countries where the Bible has never had a stranglehold. It's all part of God's mysterious plan, no doubt. Insanity is part of God's plan. Evil is part of God's plan. Everything is part of God's plan. God is inscrutable. Nobody can know why God does anything. Thus, even evolution and the Big Bang could be part of God's plan. Anything can be part of God's plan. Thus, the idea of God's plan is completely vacuous. It explains nothing and justifies nothing because it explains everything and justifies everything.

In Alabama, biology textbooks carry a warning that says that evolution is "a controversial theory some scientists present as a scientific explanation for the origin of living things. . . .No one was present when life first appeared on earth. Therefore, any statement about life's origins should be considered as theory, not fact." Right. In Alabama, I guess, if you wake up to snow on the ground, but no one saw it snowing, then you may only propose a theory as to the origin of the snow. The great state of Alabama apparently is banking on their students being too dumb to recognize language that tries to deceive and manipulate them.

Some of these creationists are the same people who hail as "scientific" the "discovery" of stones depicting humans attacking dinosaurs. The idea of climbing on the back of a dinosaur while one's comrades attack from below with stone axes does not even get a raised eyebrow. The idea that scientists might be wrong about timelines and that dinosaurs and humans might have co-existed far outweighs the preposterousness of this proposition for creationists. Any port in a storm, I guess.

As for myself, I'm beginning to have some doubts about natural selection. If it were true, wouldn't these creationists have been picked off by now?

You can write to the Board members to express your thoughts on the decision. Their names and addresses are listed at www.knea.org/strengthen/sboecontacts.html

(**August 12, 1999.** *Sacramento Bee*, "Kansas: No more evolution in school - creationists alter science curriculum," by Pam Belluck *New York Times*; the story is also in the [Nando Times](#): "Kansas bars evolution from classroom" by Carey Gillam).

comment from Cathy George:

When creationists talk about "micro-evolution," they're trying to account for the fact that there are breeds among domestic animals -- different type of sheep, dogs, horses, and cats. Even the most died-in-the-wool fundamentalist has a hard time denying that all dogs, for example, are offshoots of the same original stock, and that new breeds continue to appear. So they've created the concept of "micro-evolution," which admits that intensive human breeding (not natural selection) can alter the characteristics of a species, while still denying that natural selection, without human agency, can create new species from existing ones. Micro-evolution is used to explain diversity within a species, not speciation itself, so God's toes are not trod upon. No new species, AND no natural selection.

I don't deny that this is wacky, but it's wackiness of a slightly different nuance than you describe.

(reply: Thanks for the correction.)

August 1999. Homosexuality is rampant among God's creatures, it seems. [New Scientist](#) reports on the work of several researchers that should have Jerry Falwell and the Mormons scratching their Holy Books. (Both are well-known for their campaigns to rid the world of the sin that dares not speak its name.) Penguins, giraffes, seagulls, manatees, bonobos (pygmy chimps), etc., are pairing off for same sex pleasuring despite the many human campaigns by God's chosen preachers to stamp out the sin of homosexuality. It will be interesting to hear from the evangelists as to the divine purpose of all these queer creatures.

July 5, 1999. ZDNet has an [extensive article](#) on [Amway's](#) entry into e-tailing which will be known as [Quixtar](#). All Amway agents (now to be known as IBOs: independent business owners) have been invited to open up their own e-mall, selling not only Amway products but products of other manufacturers as well. The emphasis, as with Amway, will be on [multi-level marketing](#), i.e., recruiting new Quixtar agents who are encouraged to recruit agents ad infinitum. Agents will get a cut of sales made by those they recruit, and by sales of recruits of recruits, ad infinitum theoretically.

Why would the 5th and 6th richest men in the world, Rich DeVoss and Jay Van Andel, founders of Amway, want to get involved with Internet sales? For one thing, there is a lot of money to be had in e-commerce: they're hoping for \$1.5-\$2 billion in sales the first year...better than Amazon.com or E-Bay. Secondly, [sales at Amway have dipped recently](#) (18.5% drop in the last year).

Why not call the new company E-Amway instead of Quixtar? That might have something to do with name repulsion.

Will it work? It will certainly work for Devoss and Van Andel. They will have millions of agents to sell products, including their Amway products, from the day they open on September 1, 1999. Unlike Amazon.com, who had to spend some time recruiting agents to sell their products, Quixtar will be able to bank on Amway agents to aggressively market their products from the getgo. How much money will the Quixtar agents make? They may think they will become nanosecond millionaires but my guess is that they will fare about as well as they did as Amway agents.

July 23, 1999. According to the [Nando Times](#), *Science Now* reports that Robert P. Liburdy's scientific work, which established a strong correlation between [electromagnetic radiation](#) and cancer, has been based on faked data. Liburdy has been forced to resign from the Lawrence Berkeley National Laboratory.

"Liburdy's studies, reported in scientific journals in 1992, provided the first plausible biological mechanism linking electromagnetic fields exposure to disease." However, he omitted any data that did not fit with his hypothesis. The Office of Research Integrity of the U.S. Department of Health and Human Services found that Liburdy was guilty of scientific misconduct for "intentionally falsifying and fabricating" his data to support his claim of cellular effects from electric and magnetic fields. Liburdy denies the charges and says there is no problem with his data, only with how he interpreted it.

Liburdy, who has received several millions of dollars in federal money to conduct his research, has been banned from receiving any federal funds for the next three years.

June 29, 1999. A Los Angeles county mental health worker has been accused of using county phones to make over 2,500 calls to psychic hotlines at a cost of over \$120,000. Who said there's no harm in a little fun? [Read all about it.](#) [submitted by Glen Green]

June 26, 1999. The Federal Trade Commission (FTC) issued a warning to consumers using the Internet to find health information. The focus of [the FTC's report](#) is on false or misleading advertisements for products claiming to cure serious illnesses such as cancer or heart disease. According to Jodie Bernstein, Director of the FTC's Bureau of Consumer Protection, surfing the Web uncovered many sites that could prove dangerous to consumers.

Our survey of the web sites found that too many make deceptive, unproven and fraudulent claims. Miracle cures, once thought to be laughed out of existence, have found a new medium. Consumers now spend millions on unproven, deceptively marketed products on the Web.

Gary Dykstra, the Federal Drug Administration's Deputy Associate Commissioner

for Regulatory Affairs admits that the "Internet can be a very powerful and useful tool for consumers - but it must be used carefully." He advised consumers "to check out medical products or services offered on the Internet with physicians, pharmacists and other health care professionals." The FDA and the FTC vowed to work together and with healthcare and consumer groups "to help broaden consumer awareness about the Internet - its potential benefits and possible risks."

Some of the risks are serious. For example, Body Systems Technology, Inc. (BST) marketed shark cartilage capsules and a liquid containing a Peruvian plant derivative as being shown by scientific studies to be effective treatments for cancer, HIV/AIDS, and arthritis. BST has agreed to quit making such unsubstantiated claims and to refund money to the people they defrauded.

Jim B. Richardson's Magnetic Therapeutic Technologies, Inc. (MTT) claimed that his magnetic therapy devices are effective in the treatment of a multitude of medical problems and diseases, including various types of cancer, HIV, and high blood pressure. MTT agreed to quit making such unsubstantiated claims. A similar agreement was made with Sande R. Caplin's Pain Stops Here! Inc., which also promoted magnetic therapy as a cure for cancer, high blood pressure, and other serious ailments.

Some of the risks are the usual ones people in pain are exposed to. For example, John and Melinda Sneed's Arthritis Pain Care Center (APCC) marketed CMO, purportedly a fatty acid derived from beef tallow, as a cure for most forms of arthritis. They claimed that CMO permanently modifies the immune system, making it beneficial in treating numerous other diseases as well. The Sneeds also claimed that scientific studies supported their claims. APCC has agreed to quit making such unsubstantiated claims and to quit misrepresenting the results of scientific research.

Bernstein offered the following list of things for consumers to look for in identifying quackery:

The product is advertised as a quick and effective cure-all for a wide range of ailments.

The promoters use words like scientific breakthrough, miraculous cure, exclusive product, secret ingredient or ancient remedy.

The text is written in "medicalese" - impressive-sounding terminology to disguise a lack of good science.

The promoter claims the government, the medical profession or research scientists have conspired to suppress the product.

The advertisement includes undocumented case histories claiming amazing results.

The product is advertised as available from only one source.

In short, if it sounds too good to be true, it probably is.

June 25, 1999. Exposing psychic fraud became more difficult today, as the California Supreme Court ruled unanimously that an investigative journalist for ABC who used a hidden camera and microphone when she posed as a psychic invaded the constitutionally protected privacy of the "psychics". ABC was working on an exposé on fraud in the telephone psychic industry. The fruit of the investigation was broadcast on "Prime Time Live", which led to alleged emotional devastation and a lawsuit by two of the "psychics". The decision opens the door to reinstating a \$1.2 million judgment for damages and attorney's fees made by a lower court.

June 2, 1999. The *Journal of the American Medical Association* ([JAMA](#)) reports on a study which found that taking androstenedione ('andro') does *not* build muscles, but it may increase the risk of heart disease, pancreatic cancer, and breast enlargement.

Andro is taken by many athletes, such as major league baseball player Mark McGwire who hit 70 home runs last year. It is sold in "health food" stores, where it is touted as a natural and safe alternative to anabolic steroids.

The researchers, led by Dr. Douglas S. King of Iowa State University, found that "testosterone levels did not increase immediately after androstenedione administration or during 8-week resistance training with androstenedione supplementation. Increases in muscle strength during training were similar in androstenedione and placebo groups..."

The researchers also found a significant lowering of high density lipoprotein (HDL) cholesterol in the blood in those receiving androstenedione. HDL is the "good" cholesterol which helps take away plaque from the walls of arteries. In addition, certain estrogen levels in the blood increased in the men taking the supplement. In men, increased blood estrogen levels are associated with the development of enlarged breasts, as well as with increased risk of cardiovascular disease and pancreatic cancer.

Shrewd self-medicators will not mistake [Androstenone Pheromone](#) (AP) for the real thing. AP is applied externally to attract women who like the smell of dirty socks.

May 3, 1999. *THE STAR* (a National Newspaper in South Africa) reports on some questionable police work which demonstrates how harmful so-called [psychics](#) can be.

About ten years ago, police in WkaDukuza in KwaZulu Natal identified a pedophile (Gert van Rooyen) who had kidnapped and murdered some ten children. Upon discovery, the pedophile and his lover (Jouy Haarhof) killed themselves. Several of the murdered children's bodies were never found. Recently, an unnamed local psychic told the police that he/she had a "vision" that the bodies are buried on the property of a local man. The man, who had no connection with van Rooyen or Haarhof, is, understandably, very upset. Nevertheless, he is cooperating with the police in what ought to be recognized by any reasonable person as an "unreasonable search." The local police do not determine reasonableness on the basis of the source of their information, but on the "gravity of the case" and on the (false) hope the psychic has given to the parents of the missing children.

(submitted by Hendrik Verwoerd)

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reader comments:

crop circles

27 Oct 2002

One of the reasons for the increasing complexity (and number) of crop circles since 1990 could be the access to high performance personal computers and graphic design programs/algorithms. Armed with step-by-step instructions, even amateur hoaxers would be able to create the complex fractal designs (if they are not doctored photographs) that have wowed croppies, with unprecedented ease and speed.

sujai

The following criticisms are from Randall Eades of Danville, Kentucky:

*I recently browsed **The Skeptic's Dictionary**. After scanning several articles in it, I had to conclude that your thinking is no more critical and your reasoning is no more rational than that of a True Believer. You make much of the fact that otherwise brilliant people are "deluded" in their belief in things for which there is little evidence, yet you seem to feel that you are immune to delusions of non-belief in things for which evidence exists.*

Reply: I'm not sure I understand what it means to have a "delusion of non-belief in things for which evidence exists," but if you mean that I think I am not susceptible to wishful thinking and self-delusion, then I disagree. I don't, however, believe that I have disbeliefs about things for which there is strong evidence. There may be evidence that supports the belief that crop circles are the intentional designs of intelligent aliens who have chosen to communicate to us by writing Sumerian symbols in wheat fields, but in my view that evidence is pretty weak. The "evidence" is little more than the crop circles themselves and the proffered explanations of those who consider the "complexity of the circles" to be evidence of alien origin. Such "evidence" is on par with von Daniken's "evidence" of alien engineers building pyramids, etc. The complexity of the work indicates aliens were involved. If complexity implied alien origin then I suppose we'd have to say that aliens are behind the U.S. tax code. (Actually, now that I think about it....)

I have neither the time nor the inclination to give you a point-by-point argument, but I'll take three articles that are of particular interest to me.

CROP CIRCLES: In just a couple of lines you curtly dismiss this whole phenomenon as obviously attributable to either natural causes or human hoaxers. For further reading, you suggest only "Crop Circles: A Mystery Solved," by P. Fuller and J. Randles, published in 1990. Considering that the patterns in the crops have dramatically increased in number and complexity since 1990, it would seem that the mystery is far from solved and your thinking less than critical.

If you are truly the rational, critical thinker you claim to be, I suggest you read "Circular Evidence," by Pat Delgado and Colin Andrews, published in 1989. It is a look at the early evidence that avoids much theorizing, and has become a standard reference on the phenomenon. Then you might do a Web search on "crop circles," and look at some of the more recent patterns. If you are going to think critically, you have to look at the evidence. To criticize without looking is the mark of a True Disbeliever.

Reply: If you have a problem with a book written in 1990 because it isn't up to date, why recommend that I read a book written even earlier? In any case, you misunderstand the point of the *Skeptic's Dictionary*. It was not written to give a "fair" or "unbiased" account of paranormal, occult or supernatural beliefs and theories. It was written to provide references to skeptical material on such topics, as well as to offer a few skeptical thoughts on some of the subjects covered. (The purpose of the book is described in the introduction.) I do not claim to give nor do I intend to give a rational, critical evaluation of topics such as crop circles, etc. You might liken my purpose to that of those pamphlets on smoking in health clinics: the pamphlets don't claim to be open-minded, rational, critical examinations of the pros and cons of smoking; and they certainly don't examine the "evidence" published by the Tobacco Institute. To criticize such pamphlets as being biased or unfair would be to miss the point. My accounts are all biased, i.e., they all take a position. I don't claim to be a clearinghouse for ideas, but a source for skeptical information. The world is full of non-skeptical info on all the topics I take up. The skeptical info is infinitesimal by comparison. If I can be of assistance to someone in finding the skeptical info and skeptical arguments, then I have accomplished my purpose.

Still, thanks for the suggestion to update my bibliography. I found some recent stuff on the net and have added links to them.

You discount the accounts of multiple eyewitnesses as delusions, yet those same eyewitnesses would be credible enough to get you sent to the death chamber in a court of law. Why is their collective eyewitness testimony credible in one circumstance and not in another? Why do they suddenly become delusional when they witness events that don't fit into your paradigm? Is that rational thinking? Or is that just blind faith in a paradigm?

Reply: I wouldn't say that multiple eyewitness testimony is necessarily more credible in murder trials than in such things as mass visions of the Virgin Mary. But evidence in a murder trial may not have to depend solely on the eyewitness testimony: physical evidence and other circumstantial evidence can also be presented to corroborate or challenge the eyewitness testimony.

As far as paradigms go, I do not think that mine is based on blind faith but on experience and knowledge. If I can't find my wallet in the morning I start looking for it, I don't start praying to St. Anthony to help me find it. I don't wonder what the pixies did with it. I don't fear that aliens have picked my pocket. Am I irrational? If a friend comes out of a store with a diamond ring in his pocket that he didn't pay for, I'll ask him why he took it. I don't wonder how the ring got there without his knowledge. I don't wonder why the fairies would play such a mean trick on him. I don't consider that maybe the devil put it there. Am I irrational? If I wake up in the morning and see snow on the ground, I assume it snowed during the night. Am I irrational? After all, snow could be an alien form of communication.

If a priest utters a benediction over a dying patient and the patient recovers, I don't thank God for allowing me to witness a miracle. On the other hand, when the patient dies, I don't blame the priest or God, either. Am I irrational? If a fire destroys someone's home, I don't wonder what evil they did to deserve such a fate; if a person wins the lottery, I don't wonder at what good they've done to deserve such a fate. Is that irrational? If, whenever it suited me, I were to abandon my knowledge and experience of religious fraud, the unpredictability of diseases, and the chances of life, that would be irrational.

If a certain person who has lied to me and deceived me repeatedly, should now ask me to trust him when he tells me that my father is not really my father but is an alien being sent here to spread intergalactic warfare, should I be "open-minded" and "fair" and "unbiased" and give his proposal serious thought and examination before rejecting it? Under your notion of "rational" I would have to ignore my past experience and the general principles of reasonableness that have helped me and billions of others (including yourself, I would say) to live lives that have some semblance of order, continuity and predictability in them.

Do I have faith in my paradigm? You bet. Is it blind faith? I don't think so. Is it irrational? I don't think so.

Perhaps it's time you really earned your Ph.D. in critical thinking. Every summer for the past few years, a couple hundred complex patterns are imprinted into the fields of England. The only relevant question is: Do those patterns, in fact, exist, as reported in "authoritative" news media and captured in hundreds of photographs? Has there been a fantastic hoax pulled on the

media, a virus of disinformation run amok on the Information Highway, or do those patterns really exist?

Reply: I think there are other relevant questions, much more relevant and significant than do the crop circles exist. Of course they exist. The question is how did they get there? Some think aliens put them there. I think they are probably the result of human hoaxers.

If they do not exist, if it has all been a hoax of doctored photos and outright lies, your critique is justified and we can all rest easy at night. But if they do exist, and if the photographs are accurate portrayals of them, then you must integrate them into your religion of Science. Tell us how they are made, and why, and by what natural force or hoaxer. Perhaps when you have figured out the trick, you and Mr. Randi can create one on live TV.

Reply: They have been reproduced live on TV, and some of the hoaxers have come forth and admitted to their misdeeds, as you no doubt well know. Even so, no one can rest easy at night because of this. Hoaxers will probably continue to hoax and true believers will continue to set up institutes in Sedona or the U.K. Randi may try to create a crop circle on TV, but I won't. That's not my style. I admire Randi for taking the time and spending the money to do empirical tests of paranormal claims, etc. I'm satisfied with pointing people in Randi's direction. I admit that my goal is rather modest compared to his, but it's the one I've chosen and it suits me fine. While Randi spends a month testing dowsers to see if they can really find water with a stick, I'll work on my golf game or take a hike on a glacier, read his report, and then put a pointer to it in my *Skeptic's Dictionary*.

26 Jun 1996

I think there is some possibility that small circles might be caused by plasma globes or ball lightning. I think a recent PBS program brought this up as a theory, in addition to hoaxing of course.

--Mike Johnson

Plasma globes or ball lightning? I'll have to look into those topics. You must have watched Arthur C. Clarke. He seemed to like the ball lightning explanation for a lot of stuff.

12 Jul 1996

A point that has been totally overlooked with respect to crop circles is the

artistic merit in the design of many of them. Whatever is causing them -- and I neither support nor refute any explanation of them -- is producing designs of great artistic merit. Some are much better than others (from an artistic perspective) and some are absolutely brilliant.

reply: It's been said before, but it bears repeating: beauty is in the eye of the beholder. Some urban graffiti has artistic merit, also. To the farmers whose fields are being carved up, crop circles are little more than rural graffiti, though it can't be denied that some of these designs are very clever, well executed, clear and rich with deep symbolic meaning and worthy of a much higher place in the New World Order.

The merit of these designs has been totally squashed flat by the arguments between the Skeptics and the Believers. This is a pity. I just wish people would enjoy them and not get so flustered.

reply: I've been working on my fluster ratio. Any tips on how to decrease flustering are greatly appreciated. I've been working on developing my aesthetic sense ever since I read Kant's *Critique of Judgment* in second grade, but maintaining disinterestedness while perceiving graffiti is still hard for me.

If circumstances were different, and the artist who created these designs were publicly recognized, I'd hope that there would be a Nobel prize for art created and bestowed on them.

reply: Nobel prize for crop circle art? What category would that be under? Cereal design? Interpersonal Communication?

If these designs were generated by natural forces such as whirlwinds or armies of ants, then Wow! If they were created by aliens, then those aliens appear to be consummate artists.

reply: Armies of ants? Now that's an hypothesis I hadn't heard before. You may be on your way to a Nobel Prize yourself, for Creative Explanation! As to the aliens being consummate artists, I'm afraid you were beaten to the punch on that claim by [von Daniken](#) and others who tell us that the aliens have been here from the beginning of human civilizations and taught our ancestors everything they know about art and architecture.

*I really DON'T CARE though. They are *NEAT*. That's all.
--Stephen Wray*

reply: They're not only 'neat', they're 'swell.' And 'tidy', too.

23 Apr 1997

I do believe that most of the circles found in England (i.e those with symbols & patterns) are the result of hoaxers. However, I think some of the smaller ones are the result of a type of "whirl wind" or mini-tornado. In 1990 I was traveling in England with a college group when myself & two other group members witnessed a circle being formed. We saw grains of wheat being spun around in the air in a counter clock-wise rotation in an area of around 6 feet in width. This was on a very hot day in mid-afternoon. That's the whole of the story, didn't see any space aliens, or a UFO or a plasma vortex for that matter. I can assure you that the three of us who saw this are all very rational members of society. I myself am a Police 911 Operator & the other two are a hospital E.R. nurse & a college instructor.

Jan Bassett Dallas,Tx

4 Jun 1997

As for the crop circles being formed by man, I can easily believe it in the case of poorly done circles like --

<http://www.artbell.com/images/nebcir.jpg>

<http://www.artbell.com/images/logan.jpg>

<http://www.artbell.com/images/rocan.jpg>

But in the more elaborate circles like --

<http://www.artbell.com/images/windmill.jpg>

<http://www.artbell.com/images/double.jpg>

<http://www.artbell.com/images/stone.jpg>

I find it harder to believe that someone could make something that elaborate without leaving plenty of signs behind that they did it. Since there are people to claim that they created the crop circles, I would like to see them duplicate one of these nice patterns at night without leaving a trace.

The idea that some swirling windstorm could form patterns like these is personally even harder to accept than human action. I would assume that there should be half-formed and mangled circles all over the place where the weather patterns were not quite right to do a nice circle. Besides, how could the wind do the lines like some have?

But all these doubts do not make me an automatic believer in UFOs sweeping down and playing Etch A Sketch with the crops. I see crop circles as good fodder for late-night bull sessions, but not much more. I'll just have to keep a skeptical eye on the whole thing until definite proof steps forth.

Curtis Houghton



reply: No doubt intelligent creatures made the design at Windmill Hill in Wiltshire. Who do you think is more likely to have done this without leaving plenty of signs behind that they did it: aliens in spacecraft or humans on foot?

Curtis Houghton's reply:

I agree that an intelligent (but probably whimsical) mind was behind the Windmill Hill crop circle. And if the people responsible for that crop circle would identify themselves, I'd love to have them come over to the US and do a few on my land. This offer does not apply to aliens unless they can get their own visas and make sure their UFOs pass the proper emissions checks.



[Crop Circles](#)

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reader comments:

Aleister Crowley

07 Apr 1997

"Thelema" wasn't dictated by "a spirit called Aiwass".

**"The book of the law"* was a book dictated by "Aiwass".*

Crowley always refers to Aiwass not as a "spirit", but as a "praeter-human intelligence". With that he used a true skeptical view, that is: Aiwass can be anything, even himself, a higher-self, an angel, etc.

"Do what thou wilt shall be the whole of the law" wasn't his motto for OTO. It is not a personal motto, it is used by anyone in contact with the thelemic doctrine. And it came from RABELAIS (you know him?) through AIWASS.

....in South Brazil, there exists a popular writer (biggest selling in Brazil) named PAULO COELHO, who was a follower of Aleister Crowley. Now he is against him, but he was imprisoned and BEATEN in the years of dictatorship because of a "Alternative Society", a "Thelema Abbey".

In USA, Timothy Leary and Robert Anton Wilson are good examples of perpetrators of Crowley ideals.

But read Nietzsche, you may find the same values Crowley praised.

Nietzsche is another kind of Beast, a philosophical Beast. Crowley is a religious one.

Eduardo Pinheiro crowley@vortex.ufrgs.br

reply: thanks for setting the record straight. I think Nietzsche predicted Crowley somewhere in Zarathustra. Or was it Timothy Leary?

9 Feb 1997

Just FYI since you seem to be aiming at accuracy here..

Crowley DID NOT form Ordo Templi Orientis. It had been around for a while before he got his hands on it.

Point of fact: OTO was founded by Karl Kellner in 1895, and Crowley became Outer Head of the Order in 1922 when Theodor Ruess (its second OHO) resigned.

Also, Crowley also claimed that he had no awareness of the Order's existence prior to 1912 when Ruess approached HIM with accusations of revealing the Order's "secret" in a publication.

JR Brown

reply: According to an unauthorized blurb for the inaugural edition of the [Official Journal of the Ordo Templi Orientis in Australia](#).

Although officially founded in 1902, the Order Templi Orientis (OTO) represents the surfacing and confluence of the divergent streams of esoteric wisdom and knowledge which were originally divided and driven underground by political and religious intolerance during the dark ages. Its traditional lineage extends through the Freemasonic, Rosicrucian and Illuminist movements of the 18th and 19th centuries, through the crusading Knights Templar of the middle ages and into early Christian Gnosticism and the Pagan Mystery Schools.

The efforts of Karl Kellner and Theodor Reuss resulted in their obtaining charters to operate two systems of high-grade Freemasonry. These rites, along with the Swedenborgian Rite, included a version of the craft degrees, and the Cernau Scottish Rite and the Rites of Memphis and Mizraim provided a selection of workable higher grades as nearly complete as had ever existed. Together, they provided a complete system of Masonic initiation. With the incorporation of these rites, the Order was able to operate as a completely independent Masonic system and the OTO was officially proclaimed in 1902.

The most widely known involved in the Order is, of course, Aleister Crowley. It was his discomfort with the Masonic Charter of the OTO that led to the radical changes around 1920 and to his succeeding Reuss as head of the OTO in 1922. After his death, and in accord with his wishes, he was succeeded by Karl Germer.

When Germer died without nominating a successor a degree of chaos ensued culminating in the legal battles of the eighties. It was McMurtry's efforts to ensure the legal recognition of the OTO that finally led to the current period of harmony

with Hymenaeus Beta as Caliph.



[Aleister Crowley](#)

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cryptomnesia

Cryptomnesia is, literally, *hidden memory*. The term is used to explain the origin of experiences that people believe to be original but which are actually based on memories of events they've forgotten. It seems likely that most so-called [past life regressions](#) induced through hypnosis are [confabulations](#) fed by cryptomnesia. For example, Virginia Tighe's hypnotic recollections of [Bridey Murphy](#) of Cork, Ireland (Bridie Murphey Corkell), if not deliberately fraudulent, are most likely recollections of events that happened in this life but which she had forgotten.

Cryptomnesia may also explain how the apparent plagiarism of such people as Helen Keller or George Harrison of the Beatles might actually be cases of hidden memory. Harrison didn't intend to plagiarize the Chiffon's "He's So Fine" in "My Sweet Lord." Nor did Keller intend to plagiarize Margaret Canby's "The Frost Fairies" when she wrote "The Frost King." Both may simply be cases of not having a conscious memory of their experiences of the works in question.

further reading

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[Schick, Jr., Theodore and Lewis Vaughn, *How to Think About Weird Things* 2nd ed. \(Mountain View, California: Mayfield Publishing Company, 1998\),](#)

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[Aleister Crowley](#)

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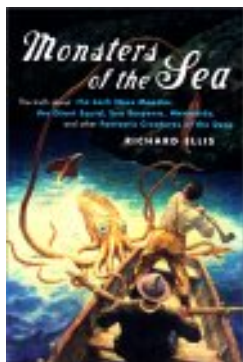


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[The Truth About the Loch Ness Monster, the Giant Squid, Sea Serpents, Mermaids, and Other Fantastic Creatures of the Deep](#)

Loch Ness monster ("Nessie")

"Nessie" is an alleged creature living in Loch Ness, a long, deep lake near Inverness, Scotland. Many sightings of the "monster" have been recorded, going back at least as far as St. Columba, the Irish monk who converted most of Scotland to Christianity in the 6th century. Columba apparently converted Nessie, too; for it is said that until he went out on the waters and soothed the beast, she had been a murderess.



The modern legend of Nessie begins in 1934 with Dr. Robert Kenneth Wilson, a London physician, who allegedly photographed a plesiosaur-like beast with a long neck emerging out of the murky waters. That photo created quite a fuss. Before the photo, Loch Ness was the stuff of legend and

myth. The locals knew the ancient history of the sea serpent. But people came to the lake more to relax than to go on expeditions looking for mythical beasts. After the photo, the scientific experts were called in. First, they examined the photo itself. Could be a plesiosaur. Yes, but it could be a tree trunk, too. Or an otter. Later, there would be explorations by a submarine with high tech sensing devices. Today, we have a full-blown tourist industry said to have generated about \$37 million in 1993, complete with submarine rides (about one hundred bucks an hour in 1994) and a [multi-media tourist center](#). For those who can't go to Scotland, there is a [webcam site](#) for your viewing pleasure with cameras placed both above and below the water.

photos and tabloids

There have been other photographs of Nessie, as well. The tabloids will pay good money for a photo of Nessie, and some enterprising souls have camped out for years in hopes of capturing the elusive beast on film. One good photo and they can retire for life! The Smithsonian even has a [WWW page on Nessie](#), where it advocates continued scientific investigation into the matter. According to the Smithsonian,

Even though most scientists believe the likelihood of a monster is small, they keep an open mind as scientists should and wait for concrete proof in the form of skeletal evidence or the actual capture of such a creature.

We suggest...that those individuals interested in such a phenomenon...join the International Society of Cryptozoology, a scientific organization that critically looks at issues involving unknown creatures of unexpected form and size, and subjects them to technical review.

Keep on looking! Of course, this is the same Smithsonian which, in the January 1996 issue of its monthly magazine, ran a highly uncritical article on [dowsing](#). We have come to expect the disingenuous defense of open-mindedness from the tabloids as they exploit our love of mystery and wonder; but we thought the Smithsonian would take a higher road and present empirical studies instead of uncritical wishful thinking. It may be the case that the Smithsonian has found that in order to compete and survive it must cater to the tabloid mentality of the general public and elected officials. What's next? Bigfoot T-shirts as part of their annual membership drive?

sightings and testimonials

In addition to the photographs of Nessie, there have been numerous sightings reported in the [testimonials](#) of unquestionably reliable witnesses. How could anyone look at all this "evidence" and dismiss Nessie as a figment of people's imagination, as just another case of [pareidolia](#) (another Virgin Mary in the tortilla)? Easy. Let's start with the photographs.

In a story not nearly as fascinating or obscure as the [Piltown man episode](#), but at least on par with the [faked fairy photos](#) that gulled Arthur Conan Doyle, the most famous photo of Nessie as a relative of the long-extinct plesiosaurs was reported to have been faked. David Martin, a zoologist, and Alastair Boyd were members of a scientific project to find Nessie. They are credited by the London *Sunday Telegraph* [March, 12, 1994] as having dug up the story of the faked photo, which was staged using a toy submarine. Christian Spurling, who died in the fall of 1993, was said to have made a deathbed confession of his role in the prank. The fake photo was not taken by Wilson--his name was used to give the photo stature and integrity--but by Spurling's stepbrother, Ian Wetherell. Ian's father, Marmaduke ("Duke") Wetherell, had been hired by the London *Daily Mail* to find the monster. Wetherell was a filmmaker who described himself as a "big game hunter." What bigger game could there be than Nessie? Except that the big game was actually a small model of a sea serpent made of plastic wood attached to a 14-inch toy submarine! Actually, the game did get big as the little prank created such a huge fuss that the pranksters decided that the best thing for them to do would

be to keep quiet.

Alastair Boyd, mentioned above as one of the researchers who uncovered the photo hoax, claims he made a genuine sighting of Nessie in 1979. His Nessie didn't look like a dinosaur, though. More like a whale, he said. It was at least 20 feet long and he says he saw it roll around in the water. Now, it's not likely that there are any 20-foot otters, but there are 20-foot logs. There are also errors in guessing at the size of things seen in the distance for a few seconds under less than ideal conditions. No matter, Boyd is convinced there are 20-foot long creatures in the loch. One would think they'd be hard to miss.

Is it a fish, a wake, a wave?

Since the Loch Ness monster story has been around for more than 1500 years, if there is a monster it is not likely that it is the same monster seen by St. Columba. Or, are we to believe that not only is Nessie very big, she is very old as well, a veritable Methusala among beasts? In short, there must be more than one monster. I'll leave it to the zoologists to calculate how many monsters are necessary to maintain the species over the years. One report I read claimed that a minimum population of ten creatures would be needed to sustain the population. The same report claims that Loch Ness is incapable of sustaining a predator weighing more than about 300 kg (about 660 pounds) [*The Naturalist*, winter 1993/94, reported in *The Daily Telegraph*]. Adrian Shine, head of the [Loch Ness Project](#), once said the monster could be a Baltic sturgeon, a primitive fish with a snout and spines which can grow up to nine feet long and weigh in at around 450 pounds. This may sound like just another fish story to some, but there is scientific evidence that Nessie is, at best, a big fish in a big lake, or a big wake in a big lake. Shine, who has been studying the Loch Ness story for some twenty-five years, now thinks that what people see when they think they see the "monster" is actually an [underwater wave](#). A similar view has been presented by Luigi Piccardi, an Italian geologist "who is convinced that seismic rumblings far below the famous Scottish lake cause the roiling waves, deep groans and explosive blasts that have for centuries led people to believe that a giant beast lurks below the loch's murky surface ("Mystery unlocked? A scientist says he's solved a monster controversy -- the 'beast' in Loch Ness is merely an illusion created by earthquakes," *San Francisco Chronicle*, June 27, 2001 by Chuck Squatriglia)."[*](#)

some bare bone facts

The Naturalist reported on extensive studies of the lake's ecology that indicate that the lake is capable of supporting no more than 30 metric tons of fish. (The food chain of the lake is driven by bacteria, which break down vegetation, rather than algae like most lakes.) Estimating that a group of predators would weigh no more than 10 percent of the total weight of the fish available for them to consume, researchers arrived at the 300-kg (660-lb.)

statistic. It strikes me as extremely odd that with all the sophisticated technology, the submarines, and the thousands of voyeurs that after all these years we still don't have a single specimen. We don't have a carcass; we don't even have a bone to examine. With at least ten of these huge monsters swimming around in the lake at any given time, you'd think that there would be at least one unambiguous sighting by now. You would think so, that is, unless you want to keep the hoax/myth/legend alive. I can't deny that there are good economic reasons for keeping the Loch Ness monster myth alive. It's good for tourism. And there are all those "scientific" investigations to be paid for with government funds and private donations: full employment for [cryptozoologists](#). Then, of course, there is all that film sold to photographers in search of The Big One. But tourism grew out of the myth, not the other way around. This story would be told with or without multi-media centers and gift shops full of Nessie mementos.

Besides the photo which Mr. Boyd and others have exposed as a fake, there are many other photos of Nessie to consider. Not all photos of Nessie are fakes. Some are genuine photos of the lake. These photos are always very gray and grainy, taken of murky waters with lots of shadows and outlines. There is no question that in some of these there does appear to be a form which could be taken for a sea serpent. The form could also be taken for a log, a shadow on a wave, a wave itself, driftwood or flotsam. Anyone who has traveled around Loch Ness will not be disappointed in the variety of forms which one will see when looking out upon the waters. The lake is very long, and on the day I was there it was very turbulent, even though the day was a rather pleasant one as far as Scottish summer days go. Obviously, since I was there for only one day, I had not come to Loch Ness to do any serious research into the monster. I'll confess that I didn't even bother to stop in Drumnadrochit to take in the Loch Ness Monster Exhibit, which, according to Fodor's guide book to Scotland, "presents the facts and the fakes."

I was on vacation, traveling with my wife, daughter, future son-in-law, and a dear friend. We headed down the B862, which affords intermittent views of the lake from the east side. It was a pleasant drive among moors and conifer spikes, but nothing spectacular in a land of glorious spectacles. The drive northward on the west bank along the A82 takes you right along the lake in many places and past the famous Urquhart castle, a "favorite monster-watching spot" (Fodor's).

Urquhart is on the tourist bus trail and gets more than its share of visitors. I had wanted to stop there and take advantage of its excellent location for monster watching but I couldn't get into the parking lot. I drove north past the castle, looking for a place to turn around, and after many miles finally found one. I drove south, past the castle again, as the parking lot guard waved me on by the castle: the lot was still full. I drove for miles looking for a place to turn around again, finally found one, and made a third pass with the same result. Was it a sign from Nessie? We had to do most of our viewing of Loch Ness from the road. While we didn't see any monsters that day, I still have a vivid

memory of one of Scotland's longest (24 miles) and deepest lakes (750, 800, or 900 ft. in places, depending on which source you pick). I have no doubt that anyone who stared across those murky, wavy, shadowy waters would see many things that could be Nessie. I don't doubt that many, if not most, of the thousands of witnesses who testify to having seen Nessie are honest, decent folk who have interpreted their perceptions according to their wishes. They have come to the lakeside and they have been blessed with a visitation! They are truly special and their lives are now marked forever as unique. Best of all: they have a story to tell for the rest of their lives. In many ways they are like the young lady who declared that the highlight of her life was when she saw music icon Michael Jackson being whisked through a department store: "it was like seeing a *UFO*," she declared! I'll bet she'll be telling the story of her Michael Jackson sighting for years to come. Who knows to what epic proportions the young lady's tale might grow? Perhaps it will grow as big as Loch Ness itself, like the legend of Nessie.

further reading

[reader comments](#)

- ["It's a Fake!"](#) by Lee Moller
- ["The Serpent's" Tale](#) by Kurt W. Burchfiel (*Strange Magazine*)
- [Analysis of the Tim Dinsdale Film](#) by Richard Carter
- [The Legend of Nessie](#)
- [Nessie on the Net](#)
- [The Smithsonian Nessie Page](#)
- ["Birth of a Legend"](#) by Stephen Lyons for *Nova*
- [Storm hits Nessie 'fishing' plan](#) - BBC News

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[Campbell, Stuart. *The Loch Ness Monster - The Evidence* \(Buffalo, New York: Prometheus, 1985\).](#)

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[the Deep](#) (The Lyons Press, 2000).

[Razdan, Rikki and Alan Kielar. "Sonar and Photographic Searches for the Loch Ness Montster: A Reassessment," in *Science Confronts the Paranormal*, edited by Kendrick Frazier. \(Buffalo, N.Y.: Prometheus Books,1986\).](#)

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[Psychic Drift -Why most scientists do not believe in ESP and psi phenomena By Michael Shermer](#)

psi

Psi (pronounced *sigh*) is a term commonly used by [parapsychologists](#) to refer to both [ESP](#) and [psychokinesis](#) taken together. The term was coined by R.H. Thouless and B.P. Weisner in their 1942 article "The Present Position of Experimental Research into Telepathy and Related Phenomena," (*Proceedings of the Society for Psychical Research*, 47, part 166, pp. 1-19).

The [James Randi Educational Foundation](#) offers a prize of \$1,000,000 to anyone who can prove he or she has a psychic ability.

See related entries on [clairaudience](#), [clairvoyance](#), [ESP](#), [ganzfeld experiment](#), [Uri Geller](#), [medium](#), [Raymond Moody](#), [Nostradamus](#), [optional starting and stopping](#), [parapsychology](#), [past life regression](#), [precognition](#), [psi-missing](#), [psychic](#), [psychic detectives](#), [psychic surgery](#), [psychokinesis](#), [psychometry](#), [The James Randi Foundation psychic challenge](#), [remote viewing](#), [retrocognition](#), [séance](#), [Charles Tart](#), [telekinesis](#), [telepathy](#) and [James Van Praagh](#).

further reading

[reader comments](#)

- ["The Evidence for Psychic Functioning: Claims vs. Reality"](#) by Ray Hyman
- [Culture, Psychopathology And Psi: A Clinical Relationship](#)
- [The Research With B.D. and the Legacy of Magical Ignorance](#) by George P. Hansen
- [Deception by Subjects in Psi Research](#) by George P. Hansen

[Frazier, Kendrick. editor, *Science Confronts the Paranormal* \(Buffalo, N.Y.: Prometheus Books, 1986\).](#) See especially the article "Fooling Some of the People All of the Time," by Barry Singer and Victor A. Benassi.

[Gardner, Martin. *Fads and Fallacies in the Name of Science* \(New York: Dover Publications, Inc., 1957\), ch. 25.](#)

[Gardner, Martin. *How Not To Test a Psychic : Ten Years of Remarkable Experiments With Renowned Clairvoyant Pavel Stepanek* \(Buffalo, N.Y.: Prometheus Books, 1989\).](#)

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- [werewolf](#)
- [zombis & p-zombies](#)

Other Sources

- [Parascope Enigma](#)

Recommended Reading

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

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[Cellphone: A
Convenience, a
Hazard or Both? By
JANE E. BRODY](#)
New York Times, Oct
1, 2002

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link not proven -
Review of studies
finds no 'consistent
evidence' Sept 19,
2002](#)

electromagnetic fields (EMFs)

All known cancer-inducing agents — including radiation, certain chemicals and a few viruses — act by breaking chemical bonds, producing mutant strands of DNA. Not until the ultraviolet region of the electromagnetic spectrum is reached, beyond visible light, beyond infrared and far, far beyond microwaves, do photons have sufficient energy to break chemical bonds. Microwave photons heat tissue, but they do not come close to the energy needed to break chemical bonds, no matter how intense the radiation. --Dr. Robert L. Park of the American Physical Society ([New York Times](#) Oct. 1, 2002)

An electromagnetic field is a region through which a force produced by electric current is exerted.

Many people fear that EMFs cause cancer; however, a causal connection between EMFs and cancer has *not* been established. The [National Research Council \(NRC\)](#) spent more than three years reviewing more than 500 scientific studies that had been conducted over a 20 year period and found "no conclusive and consistent evidence" that electromagnetic fields harm humans. The chairman of the NRC panel, neurobiologist Dr. Charles F. Stevens, said that "Research has not shown in any convincing way that electromagnetic fields common in homes can cause health problems, and extensive laboratory tests have not shown that EMFs can damage the cell in a way that is harmful to human health."

In 1997, [The New England Journal of Medicine](#) published the results of the largest, most detailed study of the relationship between EMFs and cancer ever done. Dr. Martha S. Linet, director of the study, said: "We found no evidence that magnetic field levels in the home increased the risk for childhood leukemia." The study took eight years and involved measuring the exposure to magnetic fields generated by nearby power lines. A group of 638 children under age 15 with acute lymphoblastic leukemia were compared to a group of 620 healthy children. "The researchers measured magnetic fields in all the houses where the children had lived for five years before the discovery of their cancer, as well as in the homes where their mothers lived while pregnant." The study was criticized because it is impossible to know exactly what the EMFs were at the times the mothers or their children were exposed. All measurements must be done after the exposure has taken place and assumptions must be made that the level of EMFs was not substantially different during exposure. It is unlikely, however, anyone except the intellectual descendants of Nazi doctor Joseph Mengele will ever do a control

study on humans which systematically controls exposure to EMFs from the moment of conception through early childhood.

A report published in the Journal of the American Medical Association on a study of 891 adults who used their cell phones between 1994 and 1998 found that there was no increased risk of brain cancer associated with cell phone use (Muscat 2000). Yet, many people believe that living near power lines or using cellular phones causes cancer. Why? Some lawyers, the mass media and a scientifically illiterate public can take the credit here.

[Robert Pool](#) claims popular opinion has been aroused against EMFs by unscientific sources such as *The New Yorker* magazine (Pool 1990). The fear that cell phones might be causing brain tumors was also aroused by [ABC's "20/20" \(October 1999\)](#) in a story focused on the claims of Dr. George Carlo who, for the previous six years, ran the cell phone industry's research program on the effects of radiation from cell phones. Gordon Bass also relied heavily on Carlo for his alarmist piece in *PC Computing*, "Is Your Cell Phone Killing You?" (November 30, 1999). Carlo contradicts the conclusions of most other researchers in the field and maintains that "we now have some direct evidence of possible harm from cellular phones (*italics added*)." Contrast Carlo's view with the following:

The epidemiological evidence for an association between RF radiation and cancer is found to be weak and inconsistent, the laboratory studies generally do not suggest that cell phone RF radiation has genotoxic or epigenetic activity, and a cell phone RF radiation-cancer connection is found to be physically implausible. Overall, the existing evidence for a causal relationship between RF radiation from cell phones and cancer is found to be weak to nonexistent (Moulder et al. 1999).

In a press release on October 20, 1999, the [FCC](#) responded to "20/20" and claimed that the "values of exposure reported by ABC were well within that safety margin, and, therefore, there is no indication of any immediate threat to human health from these phones." Furthermore, the "20/20" story claimed that cell phone antennae emit microwave radiation into the brain, which is misleading. [Microwaves](#) are emitted by the antennae of cellular towers that transmit the messages, as well as by the phone's antennae. Cellular phones and towers emit in the 800-900 MHz range, according to the FCC. (For comparison, microwave ovens have a frequency of about 2450 MHz; radios and TVs are in the 1-100 MHz range.)

Similar arousal has been evoked by talk show hosts such as Larry King who introduced the nation to a widower who claims that his wife's fatal brain tumor was caused by the EMF emitted from her cellular phone. There is a lawsuit, of course. The evidence? The tumor was located near where she held

the phone to her ear. The major networks reported the story about the lawsuit and the brain tumor and the cellular phone. Scientists were interviewed to give the story more 'depth' and credibility. However, no scientist has yet found a causal connection between EMF and cancer, much less between cellular phones and brain tumors. So, a scientist who has exposed *existing* tumors to EMF was interviewed. He reported that his research indicates that tumors grow faster when exposed to EMF. Sales of cellular phones dropped and stock in companies that manufacture them dropped. Because tumors exposed to EMF grow more rapidly than tumors not so exposed does not indicate that EMF causes tumors, cancerous or otherwise.

It is possible that cellular phones are causing brain tumors, but the likelihood is small. The phones emit very low EMF levels and exposure to them is intermittent. It is possible that a person with a brain tumor who uses a cellular phone is running a significant risk that the tumor will grow faster than it otherwise would. As yet, however, there is no evidence to support the view that there is a reasonable probability of either.

Lawyers representing claimants who blame their cancers on power lines cite a Swedish study that found leukemia rates were 400% higher among children living near power lines. Another study, done by the University of Southern California, found increased leukemia rates in children living near power lines. According to Robert Pool,

The study examined 232 leukemia patients under than age of 10, and a group of control subjects that were matched for age, sex, and race. The amount of EMF exposure for each child was determined in a number of ways. No correlation was found between the incidence of leukemia and the electric field exposure as measured by spot checking. An insignificant correlation was noted between incidence of leukemia and levels of exposure to magnetic fields, as measured by a continual measurement over a 24-hour period. A significant correlation was seen between the EMF exposure, as measured by wire coding, and an increased risk of leukemia. Those with the highest level of exposure had a 2.5-fold greater risk of developing leukemia. It is not understood how these differences in correlation depend on the way the EMFs are measured. It is possible that some types of EMF exposure may lead to an increased risk of leukemia. On the other hand, measurements taken by wire coding may be more sensitive. Further study is needed to see what factors are being measured by the wire coding and not by the other methods. Until that is understood, it is not clear if exposure to high levels of EMFs is related to an increased risk of leukemia (Pool, 1991).

Also, Pool reports, "there have been numerous scientific reports of elevated levels of leukemia in people who are exposed to high EMF levels on the job, such as power-line repairmen and workers in aluminum smelters." While the scientific jury is still out on the causal connection, if any, between living near power lines and cancer, the lawsuits are starting to come in. Over 201 challenges to utility projects were made in 1992 in which EMF was an issue. At least three suits have been filed in federal courts claiming exposure to utility lines caused cancer (Pool, 1991). Utility companies are running scared. They are pouring billions of dollars into efforts to cut EMF exposure from their power lines. Dr. Robert Adair, a physicist at Yale University, calls the reaction "electrophobia" and says that it would take EMF levels 150 times higher than those measured by the Swedish researchers to pose a hazard.

Lawyers will be able to take their cases to court long before the scientific evidence is anywhere near conclusive. And the standards of proof in a court of law are appallingly much lower than those in science. For example, a few years ago Judith Richardson Haines of Philadelphia was awarded more than \$1 million by a jury because they believed she lost her psychic powers after having a CAT scan performed on her at Temple University Hospital. (A judge later reduced the award to \$1, which is probably 98 cents more than her psychic powers were worth.) "All it's going to take is one or two good hits and the sharks will start circling," says Tom Ward, a Baltimore attorney who is suing Northeast Utilities Co. and its Connecticut Light & Power Co. unit over an alleged EMF cancer.[*ibid.*] There is currently a great push to bury all power lines. Better safe than sorry? The cost goes up twenty-fold to bury the lines. Then what? Lawyers claiming their clients' cancers were caused by EMFed water? It was bad enough trying to sell a house with power lines nearby when people cared about the ugliness of the view. But try to sell the same house when people are afraid of getting *cancer* from the ugly lines! In any case, we will have to bury our electrical wires even deeper than our power poles are high if we are to make a significant difference in shielding us from the magnetic fields of power lines.

It is not very likely that the average person has anything to worry about from power lines. Most of us do not get that close to them to be significantly affected by their EMFs. Our exposure to them, even if they are nearby, is not direct, up close and constant. We're probably in more danger of EMF pollution from the wiring in our homes and the electrical appliances we use, than from the wires overhead. No one can avoid electromagnetic radiation. It is everywhere. We are constantly exposed to it from light, radio and television transmissions, police 2-way transmissions, walkie-talkies, etc. Furthermore, "while electrical fields are easily screened, magnetic fields make their way unimpeded through most substances" (Pool, 1990). In fact, it is curious that while fear of EMFs is on the rise so is [magnet therapy](#).

further reading

[reader comments](#)

- [Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields](#), The National Institute of Environmental Health Sciences report concludes that electrical power lines may cause cancer, but it is extremely unlikely.
- [Scientist faked data linking electromagnetic fields to cancer, reports indicate](#)
- [Study: no clear proof electromagnetic fields pose health risk](#)
- [Study: Leukemia risk no higher near power lines](#)
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- [Powerlines and Cancer FAQs: Bibliography](#)
- [Environmental Health Institute report concludes evidence is 'weak' that electric and magnetic fields cause cancer](#)
- [Magnetic field exposure associated with childhood Leukemia](#) (note: "associated with" does not mean "causes")
- [Rats Dive into Cell Phone Debate](#) by Kristen Philipkoski
- [Mobile phone 'brain risk'](#)
- [Static Electric and Magnetic Fields and Cancer FAQs](#)
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crystal skulls

"I personally feel that the Crystal Skulls are not only here to share ancient knowledge and wisdom, but to assist in awakening our race to higher spiritual laws and understanding of itself....If the Crystal Skulls were not brought by extraterrestrials then certainly we must conclude their [sic] have been civilizations much more technologically or spiritually advanced than our own today."

--[Joshua "Illinois" Shapiro](#)

"[The] crystal stimulates an unknown part of the brain, opening a psychic door to the absolute." -- [Frank Dorland](#)

Crystal skulls are stone carvings in the shape of human skulls. The sculptures vary in size from a few inches to life-size. Some are made of pure quartz crystal, but many are made of other types of stone found in abundance on Earth. Some stone skulls are genuine artifacts from Mesoamerican cultures such as the Aztecs and are known as [skull masks](#) or *death heads*. But the crystal skulls that interest New Agers are extraterrestrial in origin or come from [Atlantis](#). They allegedly are endowed with magical powers such as the spontaneous production of holographic images and the emission of weird sounds. Today, millions of skulls, made of various types of stones and metals, are [manufactured](#) in a variety of sizes for the New Age [paratrinket](#) market, as well as for the [museum replica](#) market. And, despite the fact that [replicas are easily made](#) and are available from a [variety of sources](#), advocates of the paranormal nature of crystal skulls like [Nick Nocerini](#) claim that no one knows how these skulls were made and that they are impossible to duplicate. Nocerino is the founder of the [The Society of Crystal Skulls, International](#). His society uses [psychometry](#), [remote viewing](#), and [scrying](#) as part of their research methodology.

The myth of crystal skulls as extraterrestrial and extra-powerful seems to have begun with F. A. "Mike" Mitchell-Hedges (1882-1959) and his adopted daughter Anna. Their creative fictions have been uncritically promoted by [Frank Dorland](#), author of *Crystal Healing : The Next Step*, and [Richard Garvin](#), author of *The crystal skull; the story of the mystery, myth and magic of the Mitchell-Hedges crystal skull discovered in a lost Mayan city during a search for Atlantis* (1973). The myth has been carried on by [Ellie Crystal](#), who likens the quest for crystal skulls to the quest for the [Holy Grail](#), and [Josh Shapiro](#), co-author (with Nocerino and Sandra Bowen) of [Mysteries of the Crystal Skulls Revealed](#).

the skull of doom

The most famous crystal skull is the Mitchell-Hedges "skull of doom," allegedly discovered by a 17-year old Anna Mitchell-Hedges in 1924 or 1927 while accompanying her adoptive father on an excavation of the ancient Mayan city of Lubaantun in Belize, where the elder Mitchell-Hedges believed he would find the ruins of [Atlantis](#). The evidence collected by Joe Nickell proves beyond a reasonable doubt that Mitchell-Hedges bought the skull at a Sotheby's sale in 1943 for £400.



This clear quartz skull is about 5.25 inches high and weighs about 11 pounds. It superficially resembles stone skulls made by the Aztecs. The Aztec skulls are stylized, however. The Mitchell-Hedges skull is realistic with a detachable jaw.

Much of the occult and sinister legend surrounding the so-called skull of doom originated with Mitchell-Hedges, who claimed that the

Skull of Doom is made of pure rock crystal and according to scientists it must have taken over 150 years, generation after generation working all the days of their lives, patiently rubbing down with sand an immense block of rock crystal until finally the perfect Skull emerged.

It is at least 3,600 years old and according to legend was used by the High Priest of the Maya when performing esoteric rites. It is said that when he willed death with the help of the skull, death invariably followed. It has been described as the embodiment of all evil ([F.A. Mitchell-Hedges](#)).

The age of the object, as well as the other claims made about its making and history, were fabricated by Mitchell-Hughes. The man who owned the piece, Sidney Burney, and those who were on the Lubannatun expedition, denied that Mitchell-Hedges found the skull. Mitchell-Hedges himself never mentioned the skull until just after he bought it in 1943.

Anna has continued the hoax. Even though there is no evidence that she was even at Lubaantun when the discovery was supposedly made, she has maintained that Burney only had the piece on loan from her father until he could pay off a debt he owed Burney. If so, why didn't her father just pay Burney back instead of bidding for the item in an auction? Anna has received some attention and made a few dollars over the years by putting her skull on display, claiming it came from outer space and was kept in Atlantis before it was brought to Belize.* She is still in possession of the skull, but seems to have tired of the publicity and has retired it from public viewing.

In 1970, Anna let Frank Dorland, a crystal carver, examine her skull. Dorland declared that it is excellent for [scrying](#) and it emits sounds and light, depending on the position of the planets. He claimed that the skull originated in [Atlantis](#) and was carried around by the Knights Templar during the crusades. He claims they had the skull examined at a Hewlett-Packard lab. D. Trull uncritically reports that the lab found that the skull

had been carved against the natural axis of the crystal. Modern crystal sculptors always take into account the axis, or orientation of the crystal's molecular symmetry, because if they carve "against the grain," the piece is bound to shatter -- even with the use of lasers and other high-tech cutting methods.

To compound the strangeness, HP could find no microscopic scratches on the crystal which would indicate it had been carved with metal instruments. Dorland's best hypothesis for the skull's construction is that it was roughly hewn out with diamonds, and then the detail work was meticulously done with a gentle solution of silicon sand and water. The exhausting job -- assuming it could possibly be done in this way -- would have required man-hours adding up to 300 years to complete.*

Dorland's claims formed the basis of Garvin's book on crystal skulls.

The questionable origin of the Mitchell-Hedges skull has not deterred belief in the skull's mysterious properties. Rather, at least 13 other skulls have mysteriously appeared over the years. Some of these [skulls](#) are claimed to have magical origins and healing powers. However, a study of several crystal skulls by the British Museum in 1996 indicates that the only magic involved in the creation of these skulls was in keeping their fraudulent origin a secret. The study concluded that the skulls were made in Germany within the past 150 years. The recent origin explains how they were made with tools unavailable to the ancient Mayans or Aztecs.

Using electron microscopes, the researchers found that two of the skulls possessed straight, perfectly-spaced surface markings, indicating the use of a modern polishing wheel. Genuine ancient objects would show haphazard tiny scratches from the hand-polishing process.*

A similar result occurred in 1992 when the Smithsonian received a crystal skull from an anonymous source who claimed it was an Aztec skull that had been bought in Mexico City in 1960. Research by the Smithsonian concluded that several crystal skulls popular with the New Agers originated with Eugene

Boban, a Frenchman of dubious character. Boban dealt in antiques in Mexico City between 1860 and 1880, and seems to have acquired his skulls from a source in Germany. Jane MacLaren Walsh of the Smithsonian concluded that several crystal skulls held in museums were manufactured between 1867 and 1886.*

More skullduggery?

Other so-called ancient crystal skulls have had histories as dubious as the Mitchell-Hedges skull. For example, a skull called "[Max](#)" was supposedly given to the people of Guatemala by a Tibetan healer. Another pair of skulls, known as the [British Skull](#) and [The Paris Skull](#), was allegedly found in Mexico in the late 19th century by mercenaries. They are very similar and one may have been the model for the other. The Paris skull is said to represent [Mictlantecuhtli](#), the Aztec god of the dead. It is not known to have any occult powers, however.

[The Mayan Skull](#) and the [Amethyst Skull](#) were allegedly found in Guatemala early in this century. "Nick" Nocerino claims he met a shaman in 1949 while traveling in Mexico who led him to a Mayan priest who said he was authorized to sell the skulls because the village needed money for food. Nick didn't buy them, but he studied them scientifically and found some startling things such as "its true origin is cloaked in mystery"* and it had the power to give him hours of meaningful visions.*

There isn't a shard of evidence that these crystal skulls are mysterious in any way. What is mysterious is their continued popularity and the continued mythology as to their origins and powers.

See related entry on [crystals](#).

further reading

- [Skeletons of a mysterious past](#) by D. Trull
- [The Mitchell-Hedges Skull](#) by D. Trull
- [Celestial Gifts or Skullduggery?](#) by D. Trull
- [Crystal Skull Society FAQ](#)

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paratrinket

A paratrinket is a trinket allegedly endowed with occult, paranormal, or supernatural powers, such as [crystals](#) and [takionic beads](#).

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Mass Media Bunk

3

March 28, 1997 (Good Friday).

It is clear to all of us, that to the Anti-Christ -- those propagators of sustained faithfulness to mammalian humanism -- we are, and will be seen as, their Anti-Christ. This is certainly to be expected, and it will not delay our return to our Father's Kingdom. It might even accelerate that return.

We will, between now and our departure, do everything we can for those who want to go with us. But we cannot allow them to interfere with or delay our return to Him.

The Present Representative Do a.k.a. **Marshall Herff Applewhite**, a.k.a. **Bo** of "The Two" Bo and Peep a.k.a. **Bonnie Lu Trousdale**

By now everyone has heard of the suicides by [39 members](#) of a UFO [cult](#) known as "Heaven's Gate," but sure to be deemed the Comet Cult by the media. The news reports focus on the cult's "weird" beliefs in such things as [space ships trailing the Hale-Bopp comet](#) coming to pick up the cult members and take them to a "higher level." This is reported with a straight face during Easter week, when millions of people around the world will be commemorating the death of God by crucifixion and his resurrection into heaven after three days in the tomb.

The cult's leader, Marshall Herff Applewhite, 65, was among the dead. His cult was a part of the UFO cult phenomenon, and apparently took the side of those who believe the aliens are good and here to help us. The other side believes the aliens are evil and busy abducting humans and mutilating cows. Applegate's group apparently wasn't taking any chances, though, for each member was insured for a million bucks against alien abduction.

"We came from the Level of Above Human in distant space and we have now exited the bodies that we were wearing for our earthly task, to return to the world from whence we came -- task completed." So reads a note allegedly left behind. But news reports note that the group, which made much of its money by designing web pages and which maintained its [own web site](#), had posted a position against suicide. That is not quite true. They posted a message entitled "[Our Position Against Suicide](#)," but in that message they speak favorably of the mass suicide of Jews at Masada in 73 A.D. and claim that "The true meaning of "suicide" is to turn against the Next Level when it is being offered." The 39 dead believed that they were being offered a trip to the

"next level" in a space ship. Is that belief truly any more bizarre than belief in Jesus as God or in the resurrection of the body? I don't think so, but during this Easter season don't expect any major news organization to make this claim.

Also, the news reports already have noted that Heaven's Gate felt a union with the people killed at Waco and with the Montana Militia movement, mainly because they hated the government and were persecuted for it. Will any comparison be made with historical Christianity, Judaism or any other religion on this count? The idea that the body is just a vehicle or shell, that this life is just preparation for the next life, that worldly kingdoms are inferior to the City of God, etc., are not new ideas, nor is the idea that celibacy is a morally superior way to deal with one's sexuality and humanity. The nihilism expressed in the belief system of the Heaven's Gate cult is no different from the nihilism expressed in early Christianity and which has resurrected itself many times throughout history. [St. Augustine](#), one of the great Christian apologists for the notion of a City of God distinct from a City of Man, was also called upon to write an essay against suicide to keep devoted Christians from killing themselves in order to get into the next world. Will our journalists note the similarities between some of the fundamental beliefs of these cult members and the beliefs of members of mainstream religions? Don't count on it. (Actually, an article in the *Sacramento Bee* did note some fundamental similarities between traditional Christian belief and the beliefs of the Heaven's Gate cult. However, the article was quick to note that Christianity should be considered superior because it has lasted a long time and has a large following. The same argument has been made for the validity of astrology and a flat earth.)

Of course, the main difference between the Heaven's Gate believers and mainstream religionists is the use of suicide to get out of here. That act ends not just their lives, but their cult. As one of my students so eloquently, if unintentionally, put it: *suicide is self-defeating*. It is said they killed themselves with a lethal cocktail of pills and alcohol. In truth, they were killed by a cocktail whose main ingredients are religion, New Age non-sense and science fiction. In themselves, religion, New Age metaphysics and science fiction are harmless enough, and even beneficial to some people, as they provide them with amusement and meaning. Given to people alienated from their society, however, this mixture can be lethal.

Finally, I may have to reconsider my belief that Scientology is not a religion. Perhaps all religions began as amusements, as bizarre tales of miracles and heroes from other worlds. The storytellers and mythmakers knew their tales were fictions and for amusement only, but perhaps some people came to take them literally and built creeds, rituals and dogmas around the stories. All that would be needed to turn a campfire amusement into a religion would be a charismatic leader. The wildest science fiction could become sacred dogma. [Communal reinforcement](#) of the alienated, and devotion to their leader, would keep the group together and, if not *too* kooky, allow it to expand. (*Kooky*, of course, is an extremely relative term.) Perhaps a cult creating dogmatic delusions out of the fabric of television programs such as Star Trek and other fantasy and science fiction amusements is not so strange after all.

Postscript [4-18-97]: Actually, it has turned out that a significant amount of mass media coverage of this cult has compared it to other religions in just the ways I predicted it would not. In fact, there has been a reaction by some in the media to the "religion bashing" of liberals. Frank Rich, in a commentary in the *New York Times*,

expresses this reaction in a piece called "When religion is mind control." He thinks that too much focus has been put on the belief system of the cult and not enough on the charismatic leader and the methods of [mind control](#) practiced by this and other "true" cults (as opposed to "true" religions, which, I gather, he thinks do not use mind control). What this mind control consists of, apparently, is stripping the individual of his or her sense of individuality; isolating him or her from the rest of the world so that he or she can express beliefs in rote fashion but can't express a personal opinion about anything.

I don't know, but my reading of the Bible has Jesus telling his followers that he will divide father from son and mother from daughter, brother from sister, etc. His followers have been willing to die for him to gain eternal bliss in heaven. Islam has many stories of devout muslims willing to die for Allah. Other "real" religions have similar tales to tell. If these cult characters are brainwashed, then so are the devout followers of mainstream religions.

further reading:

- ["The Millennium Comet Approacheth"](#) by Mark Bourne
- Hayden Hewes and Brad Steiger, *UFO Missionaries Extraordinary* (New York: Pocket Books, 1976).

April 8, 1997. Montel Williams in probably one of the most shameless displays of gullibility or dishonesty (hard to tell which) by a talk show host, hosted for the duration of his show (broadcast here in Atlanta, GA on Tuesday April 8, 1997) 'World Renowned Psychic' Sylvia Browne. Throughout the show, Ms. Browne answered questions from members of the audience about the whereabouts of missing loved ones, financial future, and thoughts of dead loved ones. At one point in the show a woman asked Ms. Browne to solve the mystery of her 'haunted house'. Thank goodness, Ms. Browne was able to point out that the ghoul who haunted this woman's house had been brought in by a toy!!! Most amazing about the show, was not Ms. Browne's supposed ability, but that among the studio audience, not one question was of a skeptical nature, not one! Furthermore, Williams did not have on a representative of the opposing side on (something which is customary on some of the better more credible talk shows). One must wonder if Williams saturated the audience with only people who uncritically accepted psychic phenomena, or he edited the final product. At the end of the show a list of Ms. Browne's future lecture appearances was shown.

[submitted by Daniel Bredy]

15 Oct 1996. Here's an example of mass media bunk shown on British TV on 14 October 1996:

The Channel 4 program "Cutting Edge" is a weekly documentary which often provides no-frills vignettes on 'real life' grey tales of how horrible some people's lives are. Regular people talk about their problems. For example, a Catholic living on a Protestant housing estate

in Northern Ireland, the parents of hyperactive children, or a homeless person might be shown. There are no studios, presenters or explicit questionings.

Last night's programme was about family feuds. Three of the four stories were what you'd expect: close relatives with small disagreements blown up into resentment, hatred and sometimes violence. But in amongst these awful tales was one about an elderly lady and her children isolated from her family because she was the 'cause' of a poltergeist phenomenon!

The story as she told it was that her immediate family (children) and her sister (living with them) had been subjected to a haunting with various physical manifestations, including a flying vase. The sister, with other relatives (members of a Spiritualist church) had concluded that a recently-deceased dead uncle had been summoned by this lady, was understandably upset at being dead, and was intent on causing trouble from beyond the grave. It wasn't clear whether this summoning was deemed intentional and malicious or not, and the mechanism of calling forth the invisible ghosts of dead uncles was not discussed. Nevertheless, the rest of the family had rewritten their wills and cut off this poor woman purely on the word of relatives that she was necromantically at fault.

While feeling sympathetic to her plight, I found the whole thing rather ludicrous. She herself accepted the judgement that her dead uncle was petulantly smashing up the crockery from 'the other side', denying only that she had in some way set him off. She was a believer. The obvious moral was that belief is powerful, and that if your relatives believe you have disturbed the spirit of dead Uncle George, have cast a curse on their washing machine or can turn into a hamster when they aren't looking, then you are in for a hard time regardless of your guilt or innocence. It was a sad commentary on how people can sometimes behave.

More subtly, the whole programme lent credence to the poltergeist myth. No attention was called to the fact that poltergeists are, er, scientifically invalidated at this time. Everybody interviewed in that segment wholeheartedly believed in the phenomenon and were presented as ordinary folk, Mr and Mrs Joe Public. The viewer was left to make her own judgement and I suspect that the presence of a poltergeist would go unquestioned in the minds of many. Since the other family feuds presented were of the *your-son-broke-my-camcorder-so-pay-up/no-he-didn't* variety, the *you-summoned-our-dead-uncle/no-it-wasn't-me* story seemed to me incongruous. The segment was a valid inclusion in the programme (after all, a family breakup had obviously occurred) but the uncritical presentation and blind acceptance of the 'haunting' as background to the feud was perturbing. It was, I suppose, 'merely detail', but as 'mere detail' it added one more item to the list of unrefuted manifestations-of-forces-beyond-our-ken which believers use to support their claims. That such

a tale could be presented with a straight face on a straight-talking documentary without a single contrary opinion was a sad commentary on how such things go unremarked because they make good television.

[Submitted by Zak Hanley, Durham, England]

Oct. 11, 1996. *USA Weekend Magazine*, "America's Religious Mosaic," by Bill Moyers, who is quickly establishing himself as the PBS guru for pseudoscience (Chinese medicine) and religion (first, Joseph Campbell, and now his "Genesis: A Living Conversation"), though he has a long way to go to catch up to [Deepak Chopra](#). Mr. Moyers is seen smiling against a religious mosaic backdrop on the cover of *USA Weekend*, which proclaims THE RESURGENCE OF FAITH. In bold letters at the head of the article, Moyers is quoted as saying "Religion is breaking out everywhere." Imagine, an epidemic of religion! What a concept! The Gallup Organization is brought in to back up the claim that religion is spreading like wildfire. However, in what has become all too common among pollsters, Gallup reports not just on whether people are practicing a religion, but on whether we *think* the influence of religion is increasing. The percentage of Americans who *say* the influence of religion is increasing has gone up 12% in the last three years. But, despite the claims of religion's growth, the facts don't bear out the hype. The article itself gives the data for "estimated membership of principal religions in the USA & Canada" as rising 4.8% between 1990 and 1995 (from 249.7 million to 261.7 million). The population of the USA & Canada rose about 5.8% during that time (from about 277 million to about 293 million). So, if the numbers for religious membership is correct, membership has not even kept pace with population increase. Also, the article itself states that weekly attendance of religious services has stayed about the same for the past thirty years: at about 40%. If fewer than half the population attend a religious service at least once a week and religious membership isn't even keeping up with population increases, it seems a bit of an exaggeration to claim that there is "resurgence of religion in America," as Moyers does.

October 7, 1997. *Newsweek*, "First Born, Later Born," by Geoffrey Cowley (with Karen Springen). What do Adolph Hitler, David Letterman, Howard Stern, Michael Jordan and Jack Kevorkian have in common? Well, for one thing, they probably never heard of Frank Sulloway, the author of *Born to Rebel*, or of Geoffrey Cowley, who got to use six pages in *Newsweek* to tell us all about Mr. Sulloway's book. The thesis of the noteworthy book is that birthrank is destiny, or some such rubbish. If you think Darwin's accomplishments are singularly phenomenal, think again: we'd still be clinging to Eve's fig leaf if he hadn't been the fifth of sixth children. If he'd been the firstborn, he'd have ended up like Bill or Hillary Clinton, whatever that means. And whatever it means, it obviously means a lot to Mr. Cowley, who thinks Sulloway's work is truly the work of a late-born.

On the surface, Sulloway's work seems to be just one more attempt to find a statistical correlation between variables and then yell, "Eureka!" Who cares if first-borns tend to be mass murderers? What will you do with this "knowledge?" Excuse mass murder in first-borns? Keep a wary eye out for signs of tendencies to kill people in first-borns? Well, if the former, you are a moron. If the latter, I guarantee you will find what you are looking for, even if it isn't there.

On a deeper level, it looks as if Sulloway has given us astrology and biorhythms as pop history. It is hard for me to fathom a historian spending years ignoring the usual motives that drive people to do what we do. Instead, he looks for a correlation between birthrank and "tendency to rebel." The mindblowing conclusion of this life's work is that you can retrodict rebels really good if you know their birthrank. Wow! Of course, what constitutes rebellion may be a foggy notion, but this kind of research is best done in the fog. Cowley, no doubt a rebel, claims that Sulloway makes "a compelling case" for this useless notion. He then notes that "it's an audacious claim...and not one that social scientists will flock to embrace." There is hope, then, after all.

Even so, Cowley was able to haul in a couple of scholars to join in the adulation. An anthropologist from UC Davis, Sarah Blaffer Hrdy, is quoted as saying that Sulloway's magnum opus will "change the way all of us think about ourselves and our families." Nothing like a bit of hyperbole to temper the scientific soul. Another anthropologist, John Tooby of UC Santa Cruz is quoted as saying that Sulloway "attacks questions that could not be more contingent...why some countries ended up Protestant, why France resisted Darwinism...and shows that they fit into larger patterns." Apparently, we can explain the Catholicism of Ireland and Italy by studying the birthranks of Sts Patrick and Peter or some such non-sense. Maybe so, but I think there are some more interesting and plausible explanations out there.

Of course, no pandering to the pseudoscientific would be complete without a self-test. Newsweek reprints Sulloway's quiz: Are You a Rebel? I took the test and was disappointed to find that I am "resistant." I wanted to be "enthusiastic" or at least "supportive." I guess I should be thankful that I am not "intolerant of new ideas." That would have made me mad enough to write a really nasty article about this book.

Just in case you're wondering, I'm a firstborn, like Saddam Hussein, Marcia Clark, Steve Forbes and Adam.

p.s. Sulloway's book is published by Pantheon. I'll really get cynical if I find out that the same company that owns Pantheon also owns Newsweek.

Oct 3, 1996. (more on Sulloway's book) Cheryl Russell, writing in *USA Weekend* (May 9-11, 1997), claims "If Sulloway is right, this may help to explain welfare reform, the Contract With America, the rise of the religious right and the crackdown on drugs and smoking." Indeed. Then again, if he isn't right, this may neither help nor not help explain anything or everything. If you want to read something akin to an astrological forecast, read Russell's article. Here is one more gem: "The firstborns of firstborn boomers may try to counteract some of the changes instituted by laterborn boomers. But their younger siblings, along with the firstborns of laterborn boomers, soon will stir things up." I wonder if Ms. Russell is a middleborn, trying to stir things up between the firstborns of firstborns and the laterborns of laterborns.





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INGRID PERITZ ,
The Globe and Mail,
October 15, 2002

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[Prophet sounds as if
he came from another
planet](#) Dennis Roddy,
Pittsburgh Post-
Gazette Nov 17, 2001

Raëlians (Raelians)

The Raëlians are UFO-[cult](#) members who follow Claude Vorilhon, a Frenchman and former motor sport journalist and race-car driver who calls himself [Raël](#). He claims that on December 13, 1973, he was in a volcano near Clermont-Ferrand, France, when he saw a [UFO](#) "7 meters in diameter made of a very shiny silver metal and moving in a total silence." He says a radiant being emerged and entrusted him with a message revealing the true origin of mankind. They told him that henceforth he would be known as Raël, which means "messenger."



His followers consider him to be "the prophet of the third millennium." Like all good religious leaders, Raël expects his followers to support him. A 10% tithe is the norm.

He explains his mission in his book, [The True Face of God](#). According to Taras Grescoe of [Salon.com](#), Vorilhon claims that

he was taken to the planet of the Elohim in a flying saucer in 1975, where he was introduced to noted earthlings such as Jesus, Buddha, Joseph Smith and Confucius. The Elohim, small human-shaped beings with pale green skin and almond eyes, were apparently the original inspiration for the Judeo-Christian God. They informed Vorilhon that he was the final prophet -- sent to relay a message of peace and sensual meditation to humankind under his new name of Raël -- before the Elohim would return to Jerusalem in 2025.

Raël claims that the Elohim have taught him that the human race was created from the DNA of aliens some 25,000 years ago. (In fact, *all* life on earth was created in alien laboratories.) Among other things, Raël has also learned that cloning is the way to immortality and there is no God or soul. According to Raël, our alien creators want us to be beautiful and sexy and enjoy a sensuous life, free from the restrictions of traditional Judeo-Christian morality.

According to Grescoe, "Raël's success seems to derive from providing a structured environment for decadent behavior: He offers a no-guilt playground for hedonism and sexual experimentation." Fortunately, the Raëlians are big on using condoms. They won't spread as much disease that way. However, using condoms won't suffice to deplete their numbers,

Raël believes, since he has formed a cloning company called [Clonaid](#) which promises to

provide assistance to would be parents willing to have a child cloned from one of them. This service offers a fantastic opportunity to parents with fertility problems or homosexual couples to have a child cloned from one of them.

Scientists say that there is no possibility of Clonaid actually working in the near future and dismiss its goals as pure fantasy (Cohen). However, Clonaid should be a reminder of what might happen in the distant future if controls on genetic engineering are not developed to prevent religious fanatics and lunatics from gaining more control of the planet than they already have.

The Raëlian headquarters are in Montreal but the cult is international and claims to have some 50,000 members in 85 countries. They have an "Evidence Page" on their Web site where they offer proof of their prophet's claims, thus relieving us of the burden of having to believe on pure faith. Unfortunately, the evidence provided is likely to satisfy only those eager for delusion and self-deception. For example, the [historical evidence](#) is of the type [Velikovsky](#), [von Däniken](#) and other mytho-historians have provided: they take ancient legends, stories, and [religious texts](#), and fit them into their preconceived theory. The Raëlians also consider [UFO sightings](#) as proof of their messenger's claims.

Their attempt at ["scientific" evidence](#) will have some appeal to the scientifically illiterate and the logically-challenged. The scientific evidence is nothing more than speculation and assumption in juxtaposition to facts. Their evidence consists of claiming that we are about to create life in our laboratories and our creations will probably think we are gods. Therefore, it is reasonable to conclude that we were created in laboratories and think of our creators as gods. The rest of the "scientific" evidence consists of a list of scientific accomplishments which, I suppose, are imagined to have to have occurred elsewhere before the living things on our planet could have been created in the lab. All of which begs the question as to whether this occurred elsewhere 25,000 years ago.

Apparently, the Raëlians are not bothered by the rather absurd image of a race of superior beings working for thousands of years in a laboratory to create all our insects, fungi, bacteria, viruses, etc., not to mention all their lovelies that have gone extinct. Why would any beings do such a thing? And why would they wait 25,000 years to reveal their handiwork to a French race car driver who spots their UFO in a volcano? And then tell him that the message is to clone ourselves so we can be immortal. Then again, is this story any stranger than the ones in the Bible?

The kicker in their argument is their proof that [evolution could not have occurred](#). They claim scientists have discovered that genes have a DNA repair mechanism ([p53](#)) which prevents mutation, an important process in evolution. Species couldn't have diversified if this mechanism were present. p53 was at first thought to be an oncogene but is now thought to be anti-oncogenic. It is of little interest to the Raëlians, I suppose, that p53 itself mutates. And it is pure speculation on their part that the entire genetic code of all species always consists of genes which prevent mutation from occurring. Even if they're right, however, it wouldn't follow that Vorilhon's preposterous UFO tale is true. Just ask the so-called [creation scientists](#), the [Scientologists](#), the [Urantians](#), the followers of [Barbara Marciniak](#) or [UFO Billy](#), the remaining members of [Heaven's Gate](#), or the surviving members of other [UFO religions](#).

Anyway, if the Raëlians are right, I am looking forward to asking the Elohim why they created the mosquito. In the meantime, I may take up Raël's offer of \$2,000 to anyone who starts a new religion.

See related entries on [cults](#), [Pleiadians](#), and [ETs & UFOs](#).

further reading

[reader comments](#)

- [Raël love A gorgeous group of alien spawn hones a hedonistic hankering for sex](#) by Taras Grescoe of [Salon.com](#)
- [Cult's bizarre vision rekindles cloning debate](#) by Philip Cohen, San Francisco
- [Gene protects human life](#)
- [The Raelian Revolution](#)
- [Group to move cloning efforts offshore after FDA warning](#)
- [The God game no more The feds crack down on a human cloning lab by Nell Boyce and David E. Kaplan](#)

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For information on the devious tactics used by Scientology to recruit new members in the aftermath of the anti-American terrorist attacks on 9/11/01 see [Rod Keller's page on Scientology](#).

R & R

The Sound of One Mouth Blathering

review of

The Rediscovery of the Human Soul

by L. Ron Hubbard
Scientology, 1996

by
Robert T. Carroll
October 22, 1996

Which of the following does not belong? *The Talmud, the Upanishads, the New Testament, the Vedas, Dianetics?*

Here is an even easier question: which of the following does not belong?
Judaism, Islam, Taoism, Buddhism, Scientology?

Despite what its founder and its advocates say, Scientology is not a religion. It has no creed, no rituals, and no hope of becoming a major social institution for the transmission of values. It has no cosmological myths and offers nothing new or interesting in ethical teachings. What it does have is philosophical dogma which it claims is scientifically validated by its practice of *auditing*. And while these dogmas do assert belief in a soul which is independent of the body and which usually resides in a person's head, the origin of the soul is obscure while its destiny is vaguely described in Buddhistic terms of escape from the cycle of rebirth. Scientology is an eclectic collage of philosophical and religious notions imaginatively brought together in a loose system by a man with a gift for fantasy.

I know, in 1993 the Internal Revenue Service of the United States of America declared that Scientology *is* a religion. The IRS had initially denied Scientology the tax-exempt status of a religion. But after years of war which featured numerous lawsuits and tit-for-tat harassment techniques by scientologists, the IRS surrendered. What they should have done, in my humble democratic secular opinion, is eliminated the tax-exempt status for *all* religions. Or they should have continued to deny Scientology status as a

religion, as the [German government](#) continues to do.

Which of the following does not belong: Einstein, Darwin, Newton, Feynman, Hubbard? Too easy? Yet scientologists claim that Scientology is a science. It isn't. *The Rediscovery of the Human Soul*, a collection of essays by L. Ron Hubbard, founder of Scientology, along with background essays provided by the institute which bears his name, is a hostile collection of anti-science literature.

If Scientology is neither a religion nor a science, what is it? It is an eclectic collection of metaphysical notions which are "applied" in counseling sessions called *auditing*. If a label must be given to Scientology, I would call it a philosophical cult and its teachings applied metaphysics. It shares in common with other ancient philosophical schools, such as [Stoicism](#), the offering of an alternative to traditional religion. In common with many ancient mystery cults such as Mithraism and early Christianity, it offers a refuge from a turbulent, heartless world while promising immortality. Scientology claims to be able to improve a person's happiness, intelligence, well-being, etc. Maybe so. I can't speak to the issue of its benefits or harms to people who have been audited. But I can speak to the ideas upon which Scientology is based, especially to the claim that these ideas are "scientific." Not only are the fundamental notions of Scientology not scientific but metaphysical, there is a basic hostility to science at the heart of Hubbard's teachings.

I received an unsolicited copy of *The Rediscovery of the Human Soul*. It was sent to my office in the Philosophy Department at Sacramento City College. I also received an invitation to think about it from Kaye Copley, the L. Ron Hubbard Public Relations Director. Copley writes that the book was sent to me to "provide an understanding of some of the fundamental principles of Scientology and an insight into what lies behind its phenomenal growth." And, "We look forward to receiving your thoughts on [Scientology]." Well, here goes.

Slick but unimpressive

I'll begin with the positive. This book is beautifully done: slick, glossy pages, colorful photos, artistic black and white shots and graphics. It's pretty enough to go on the coffee table.

Now to the content and the negative.

The book is a collection of articles either by or about Hubbard. In "An Introduction to L. Ron Hubbard" we're told that no "single philosophic work" is as large as the materials of Scientology. This is unimpressive. Bigger is not necessarily better, or even good, for that matter.

Scientology is also called a "major religion" with solutions to criminality,

drug addiction, illiteracy and social unrest--concerns which set Scientology apart from most other religions. Scientology is also called "an *applied* religious philosophy" based upon "axioms derived from precise observations," not "theory or assumptions." These claims, however are based on epistemological ignorance or arrogance. Hubbard uses the term 'axiom' himself in describing the "truths" of [dianetics](#). He uses the word to mean "absolutely certain truths." Axioms are self-evident propositions such as "the whole is greater than any of its parts", or postulates (essential presuppositions), or universally accepted principles such as "everything has a cause." Axioms are either statements which are true by definition, or they are assumptions or based on assumptions. [Observation](#), by its very nature, cannot yield axioms. Any data derived from sense observation must be organized and interpreted by our fallible human organs and consciousness, and cannot yield absolutely certain empirical truths. If there is anything epistemologists and philosophers of science are in agreement on it is this: sense perception can, at best, lead to probabilities, not absolute certainties. Hubbard did not understand this and neither do his followers. Those who practice science recognize that axioms cannot be reasonably derived from sense observations or experiments.

Scientology might best be described as Irrefutable Pragmatism. The only criteria for truth, we're told, is "workability." Did procedures "better our capacity to survive, actually make us happier, more causative and more able?" The beauty of such imprecise concepts is in their slipperiness: there is no need to invent [ad hoc hypotheses](#) to explain disconfirming evidence because the concepts are so vague that one can fit any data to them. I fear that the "axioms" of Scientology which are not false or trivial are likely to be so vague as to be useless.

In the introductory essay, we are presented with another example of philosophical ignorance when metaphysical materialism is identified with the philosophy of "get what you can before you die." I suggest that Scientologists read some [Epicurus](#) or [d'Holbach](#) for starters. Not only is collecting material possessions irrelevant to metaphysical materialism, it is in fact a predominant motif among many "spiritual" leaders and their flocks, including Scientology which may one day rival the wealth of the Catholic Church. The Epilogue to the book claims that Scientology is growing at the rate of 10,000 a week. (At that rate, if there is no population increase on earth, everyone will be a Scientologist in about 10,000 years.)

Somebody needs auditing

With a foundation so flawed, so evidently comprised of philosophical falsehood and ignorance, it is hard to take the rest of Hubbard's claims seriously. He says that we are all "troubled." We need "auditing" to find the cause and cure of our "troubles." Most people tremble at the thought of being audited, but L Ron H turned auditing into a rich concept. He even added a

spiritual touch to auditing: his own version of *reincarnation*. We have past lives which need auditing to get at the root of our "troubles." Past lives is mentioned as if it were an axiom. It is not an assumption or article of faith. In fact, *faith* is never mentioned in this "religion." At least other religions, even the minor ones, usually admit they are based on faith. By the way, auditing is not free, like confession, and may require many sessions to get through all those past lives. If nothing else, the convert will learn the true meaning of eternal giving.

In Hubbard's "A Note on Excalibur," we are introduced to what he calls his fundamental insight into the secret of life. Unfortunately for those who actually know something about philosophy, this turns out to be little more than a rehash of *naive vitalism*, a philosophy whose adherents have dwindled to near none since the time of Aristotle. Briefly, L Ron H's vitalism holds that there is a basic Life Force which directs living things in a purposive fashion towards survival and survival only. He claims that he demonstrated that this Life Force exists in each living cell by a grand experiment he did in 1937. The same experiment, he says, proved Darwin was wrong about inheriting learned responses. By implication, I suppose, L Ron H might be thought to have vindicated Lamarck, who had argued that evolution occurred by a process of passing on learned behavior to progeny. In either case, Hubbard's claim must come as a great surprise to the whole evolutionary biology community, including any Lamarckians still around since Lamarck was as mechanistic and non-vitalistic as Darwin in his explanations.

What was this great experiment which has been systematically ignored by every biology text book since its alleged occurrence? He claims he proved that bacteria can mislearn from experience and pass on their mislearning to their progeny.

- 1. He subjected bacteria to jets of steam and there was no effect.**
- 2. He subjected the bacteria to jets of "toxic cigarette smoke." The bacteria "retreated" from the threat.**
- 3. He continued to "taunt" the bacteria with smoke.**
- 4. He substituted steam for smoke. The bacteria "retreated" because they mistook steam for smoke.**
- 5. Second and third generation bacteria retreated from steam, proof that they mistook steam for smoke like their dumb parents.**

L Ron H claims that the new generations had inherited their parents and grandparent's inability to tell the difference between steam and smoke. He

also claims that all generations of bacteria "retreated" from smoke in an effort to survive. I find this experiment extremely interesting for several reasons.

1. How does he know the bacteria were retreating? Was there a door marked "exit" on the edge of the petri dish? How can he be sure that they weren't actually seeking the source of the smoke because they enjoyed getting high? This anthropomorphizing of bacteria is charming, I suppose, but not too scientific.

2. No reputable biologist has ever heard of this crucial experiment.

3. He expects us to believe he "taunted" bacteria with jets of steam and got no response until he first "taunted" them with smoke. Maybe the bacteria were "taunting" L Ron H by faking a retreat.

4. He thinks that if bacteria mistakenly retreat from something which is no threat to their survival, this proves there is "an intelligence behind the scheme of life--an `X-Factor'....that shapes and gives meaning to life in ways that Darwin simply could not explain." Perhaps, but it must be a pretty dumb intelligence if it can't tell the difference between what's harmful and what's harmless. If survival is the only thing this Life Force is aiming at, as L Ron H claims, then it is amazing anything has survived since it doesn't even have the ability to distinguish between what is and what is not a threat to survival.

In Hubbard's attempt to refute what he considers to be the Darwinian notion that life is "directed by chance, by a dumb roll of genetic dice as it were" he cites an experiment on dumb bacteria who get dumber with each generation! "Directed by chance" is an oxymoron, of course, but we get the idea: Darwin's view is that there is no purpose to existence or to evolution; Hubbard's view is that even cells have purposes and act intentionally, if unintelligently. I suppose I should not be amazed that such an "experiment" and such reasoning would be the foundation of a body of notions which many people would accept, not on faith, but because they think it is scientific.

Contempt for science

If there is one constant throughout the musings of L Ron H presented in this little volume it is that he had a profound contempt for science. In essay after essay, he presents metaphysical ideas about Mind or Soul or Life and calls them scientific. He repeatedly claims that he has scientific proof that the soul exists, that the soul goes through many incarnations, that even minerals have

souls, etc. I wonder if the trustees of Scientology sent a copy of these notions to any scientists. The science is nearly non-existent, and what science there is, is bad science. But the philosophy is there for all to see, and what is visible is a metaphysical belief in the soul as a directing force in all of nature and whose direction is toward "survival." This idea is no more scientific than the notion L Ron H opposes to it, viz., that nature is nothing but material (i.e., non-spiritual) entities and forces, following mechanistic laws, and is essentially without direction or purpose. There is nothing new about this debate. The opposition of mechanistic materialism to teleological spiritualism has a long and interesting history. Unfortunately, L Ron H adds little of note to this debate.

With the foundation laid in an inept experiment, we are now ready to delve more deeply into L Ron H's wisdom and insights. In "The Birth of Dianetics," an introduction to Hubbard's "Original Thesis," we discover that our scientist is really a metaphysician who thinks teleologically in terms of final causes, an idea abandoned by most scientists and philosophers after [Spinoza](#). He caricatures mechanistic materialism as the view that feelings and emotions are nothing but "a consequence of physiology." His view is that "mind regulates body" because "function monitors structure," a view which might be of interest to certain naive vitalists. He also seems to think that because he can apply his metaphysical notions to the empirical world that his notions are therefore scientific and result in axioms. But his main supportive reason for opting for naive vitalism as opposed to a mechanistic materialism seems to be that he thinks materialism is bad. For example, he thinks the popularity of metaphysical materialism led to the excessive use of drugs to treat both physical and mental illness. He ignores any benefits which come from drug therapy to such people as diabetics, those who've had their thyroids removed, and even the mentally ill. In a very real sense, what Hubbard offered was the ultimate in alternative medicine. The mind regulates the body.

I can see how these ideas might be attractive to someone who is ill but who does not want to deal with medical doctors or who does not want to admit that there may be nothing he or she can do about the illness. No one wants to be a *patient*, a passive recipient of disease: we'd like to be in control. But L Ron H has ignored the benefits of drugs and he has misrepresented mechanistic philosophy when he claims that drugging people to get them to act "normal" is a consequence of materialistic conceptions of human reality. If anything, the idea of a "normal" state for human behavior is rooted in teleological systems which posit that there is a goal or purpose which each being must strive to achieve in order to fulfill its nature.

To his credit, though, L Ron H does cite an empirical reason for rejecting materialism and the attempt to reduce consciousness to brain processes. However, his empirical reason is suspect. In the title essay (written in the 1930's) of this collection, he tells the story of a how a biology student told him that "the brain contained an exorbitant number of molecules of protein and that each molecule `had been discovered' to have holes in it." Our

scientist then muses: "It seemed to me that if molecules had holes in them to a certain number, then memory, perchance, might be stored in these holes in molecules." He then says he did some mathematical calculations "done with considerably higher math than psychologists or biologists use" and discovered that "the brain did not have enough storage for more than three months memory." Apparently, it did not occur to Hubbard that there might be a hole in his theory. While we can't blame him for not knowing much about the brain, we can criticize his followers for not keeping up to date in sciences such as neurology. If Scientology were truly a science, it would be a major scientific research institution. Not only is Scientology not a science, it is **anti-science**. Science studies the material world and attempts to understand Nature on its own terms. A neurologist might believe in souls, but as a scientist the neurologist notes that the brain's 10,000,000,000,000 or so neurons ought to be enough to hold even a memory the size of L Ron H's. (Actually, it's at least 500 times more neurons than is needed if one neuron were required for each memory and could not be used again, and if he had a new memory every second of his life for 80 years.) This fact seems to be of little interest to scientologists, who think that because we do not have a good understanding of how memory works at the neuronal level, that believing in a spiritual mind with its apparently infinite capacity for memory is a better option. There is no scientific value to this metaphysical assumption. On another level, how many scientologists do you suppose will be reading papers on their current research on memory at the next symposium of the National Academy of the Sciences? It won't take too many neurons to figure that one out.

In addition to trying to pass off his metaphysical notions as if they were scientific, L Ron H tried to pass off himself as a great scientist who, while working independently, had made great discoveries. He even wrote to the American Medical Association and the American Psychological Association, informing them of his progress. The letter, written in 1947, is reprinted in this collection. It is not hard to understand why his letter was ignored. He sounds like a crank at best or a rambling lunatic at worst. In the letter he claims he's treated 20 people, though he does not say where or what qualifies him to treat anyone. He says he's cured migraine headaches, ulcers, asthma, sinusitis and arthritis by uncovering their chief cause in *prenatal or birth traumas*. He mentions *attempted abortion* as a main factor in four of his cases. After writing this strange letter, he then complains that there is a conspiracy against his genius which has continued to this day. Yet, it seems rather reasonable to ignore someone who claims he is doing research on his own and has cured migraines and ulcers by finding the cause in the patient's mother's attempted abortion while the patient was in the womb decades ago!

Shocked!

In an interview with Stillson Judah in 1958, Hubbard expresses a genuine shock that sciences (i.e., psychology) could not answer all his questions. Neither could philosophy. "We didn't even know what a spirit was," he says. "Whether it was [Nietzsche](#) or Schopenhauer, [Kant](#), or any of the rest of them.

These men were all groping. So I said, here's a wide-open field." Nietzsche and Schopenhauer groping to know what a spirit is? I don't think so. Unlike Nietzsche and Schopenhauer, Hubbard was looking for "the principle of existence," i.e., the purpose of life. He says he found the answer: *to survive!* Nietzsche and Schopenhauer had determined that there is no purpose to life. To them, beings don't exist *to survive*, they exist *because* they survived. Beings which did not have a strong urge to preserve themselves would not survive unless by chance they found themselves in an environment friendly to them. Beings which did not have reproductive urges would become extinct. We don't have sexual urges to preserve the species; the species is preserved because we have sexual urges. In any case, why Hubbard found the desire for self-preservation so profound is elusive.

Hubbard jumped from his "discovery" that everything is striving to survive to the notion that something is "entangling man." What was it? "He was tangling himself up with combinations of mental image pictures." He claims he measured these pictures in 1953, using a meter ([the E-meter](#)) he built to measure the response of the soul "while exteriorized from a being." In 1951, he says, he found out who was looking at the pictures: "the human soul was the fellow."

In the introduction to "Scientology Fundamentals," we are told that the claim "you are a spirit" is "a unique statement, and factually found nowhere else in the whole of philosophic, religious or scientific thought." This seems like an odd statement coming from one who also claims to have studied in depth Buddhism and Taoism. I guess he never read George [Berkeley](#), either. This is the essay which is supposed to be his "definitive introduction to philosophy." Its main virtue is that it is short and can be read in lieu of *Dianetics* to get an idea of what scientology is all about. I'd love to go into all the details about Thetans (spirits) and the difference between astral projection and true separation of the soul from the body, how the reactive mind takes pictures when a person is unconscious, etc., but I've dealt with that elsewhere. [\[SD, "Dianetics"\]](#) I will share with you a quote or two, however, and comment briefly on Hubbard's lack of connection to the history of philosophy.

In the insect kingdom it is not established whether or not each insect is ordered by a spirit or whether one spirit orders enormous numbers of insects....the general authorship of the physical universe is only speculated upon, since Scientology does not invade the eighth dynamic.

I guess we can all be thankful for that. In any case, another dynamic which Hubbard does not invade is the fray over interactionism, a central problem in [dualistic philosophies](#): how do mind and body interact? Since they are defined as independent and completely unlike substances, this question needs to be answered. Descartes "solved" the problem by declaring that the mind resides in the pineal gland and it is there that connection is made to the body.

Hubbard's problem is even more difficult than Descartes since Hubbard's is a [pluralistic](#) philosophy with three substances to deal with: spirit, mind and body. However, he is oblivious to the fact that after defining these types of being, each completely distinct in nature from the other, that it is a major puzzle as to how the three interact. He seems so sure that they do interact that it does not seem to occur to him that there is a major philosophical problem here. His obliviousness to central philosophical issues is matched only by his obliviousness to scientific issues. One thing he was not oblivious to, however, was what buttons to push to arouse sympathy and interest in his philosophy.

One of the main attractions of Scientology must be its promise of immortality. In the "The Demystification of Death" we learn of the internal strife caused by the doctrine of past lives, which L Ron H asserts is "not the same as the theory which has been called 'reincarnation' in Hinduism," ("A Note on Past Lives"). There was opposition to the idea from some of Scientology's Board members because it was in opposition to Christian orthodoxy and the materialistic creed of the psychologists. In any case we are supposed to believe that the doctrine was accepted because it is true and the truth must prevail. He claims in "A Note on Past Lives" that "Dianetics gave impetus to [Bridey Murphy](#)." He also asserts a belief that some scientologists have been dogs and other animals in previous lives.

In "The Phenomena of Death," Hubbard claims that "It has only been in Scientology that the mechanics of death have been thoroughly understood." What happens is this: the Thetan (spirit) finds itself without a body (which has died) and then it goes looking for a new body. Thetans "will hang around people. They will see a woman who is pregnant and follow her down the street." Then, the thetan will slip into the newborn "usually...two or three minutes after the delivery of a child from the mother. A thetan usually picks it up about the time the baby takes its first gasp." This is the truth about death which only Scientology has understood. On what basis we are supposed to believe this "truth," I can only guess. He says in "A Note on Past Lives" that "Evidently the newborn child has just died as an adult. Therefore he or she, for some years, is prone to fantasy and terror and needs a great deal of love and security to recover perspective of life with which he or she can live." Evidently.

In "Dianetics, Scientology & Beyond" we are told by Hubbard that those who reach "total spiritual independence and serenity" are called Operating Thetans or OTs. The OT has "personal and knowing immortality and freedom from the cycle of birth and death." But this is not the Buddhist doctrine of nirvana.

In "Philosophy Wins after 2000 Years" Hubbard explains why all previous philosophy has been a failure until Scientology. Materialism is again caricatured as the doctrine that "one is merely meat and all life arose by spontaneous and accidental combustion from a sea of ammonia." Contrast this with the good news that "Scientologists are seldom ill" and their intelligence

is increased. This is done without "persuasion or hypnosis or 'faith'." Or superstition. Hubbard modestly concludes that Scientology "delivers the answers to the eternal questions and delivers immortality as well." I think it would be more accurate to say that it *promises* these things but it is unlikely it can deliver the goods.

The collection would not be complete without at least one accusation that the CIA and the FBI have conspired for years not only to discredit Scientology and Hubbard, but to "appropriate the materials of Scientology." I assume he is not talking about tax records, but his philosophical and fanciful writings. The Scientologists believe that Hubbard's lectures on "the state of the OT" now reside within National Security Agency vaults. This fear is only believable because our intelligence agencies have demonstrated in the past their gullibility regarding paranormal, occult and spiritual claims.

The penultimate essay is modestly titled "My Only Defense for Having Lived." It is of little interest but in it Hubbard claims that he was not motivated by fame, fortune or power. His only motivation was to understand man. This essay will have to do in lieu of an autobiography because such a tale "would sound far, far too incredible." Nobody would believe his tales, he says. Still, he can't help but tell a few. For example, there is the story about how as a boy he was expelled by the governor of an island on a charge of "always being happy and smiling."

Finally, in the last essay of this collection of Scientologist writings, we are given "My Philosophy" by L. Ron Hubbard. It is notably uninteresting except for a curious anecdote he shares. He tells us that his service record states that "This officer has no neurotic or psychotic tendencies of any kind whatsoever." Presumably this information is shared so we can appreciate how he cured himself of his war wounds, including blindness. But it might be interpreted as a protest to an anticipated criticism.

[RTC] October 22, 1996

further reading

[reader comments](#)

- [Scientology Founder - What a Nut!](#) read about L. Ron, his commitment to a mental hospital and the F.B.I.
- [Scientology Related Deaths](#)
- [Scientology Audited](#)
- [Stoicism](#)
- [The Scientology Home Page](#)

- [The Scientology Public Relations Campaign Against Germany](#)
- [Scientology -- Is this a Religion?](#) by Stephen A Kent University of Alberta, Edmonton/Alberta, Canada Department of Sociology

[Churchland, Patricia Smith. *Neurophilosophy - Toward a Unified Science of the Mind-Brain* \(Cambridge, Mass.: MIT Press, 1986\).](#)

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Last updated 02/25/03



[Jean Houston](#)



[hundredth monkey phenomenon](#)



reader comments:

cults

7 Jul 1999

It's funny, but the definition you use for a cult, and especially the indoctrination techniques, fits very well with Basic Training for the military. The military/civilian distinction fits the "us vs. them" mentality, and as far as a charismatic leader goes, well we had a Drill Instructor that was pretty high and mighty. (It was more fear and respect than love and admiration though!) As far as the seven techniques of indoctrination go:

1) Subjection to stress and fatigue -NEVER enough sleep or time to do what we were supposed to. 2) Social disruption, isolation and pressure- Isolation from everything and everyone nonmilitary. 3) Self criticism and humiliation- If only you had heard what the Drill Instructor would say to us! 4) Fear, anxiety and paranoia- There was always someone watching and waiting for you to screw up. 5) Control of information- No news, censored mail. 6) Escalating commitment- Well after all, they want you to die for God, country, and the guy next to you. 7) Use of auto-hypnosis to induce 'peak' experiences-Physical training and mindless, repetitive tasks (although I don't remember ever "peaking".)

Perhaps it's not an exact analogue, but it is a very similar model of behavior modification to the ones practiced by cults. Thankfully, however, Basic Training actually ends, unlike cult practices. Most people snap out of the basic training mode when they get back into a more normal routine. (I think the ones who don't go on to become Drill Instructors themselves.)

Chuck Hansen



SkepDic.com

the evil eye

The evil eye is a kind of curse put on a child, livestock, crops, etc., by someone who has the "evil eye." There does not seem to be any particular reason why some people are born with and others without the evil eye. The curse is usually unintentional and caused by praising and looking enviously at the victim. In Sicily and southern Italy, however, it is believed that some people-- *jettatore*-- are malevolent and deliberately cast the evil eye on their victims. Belief in the evil eye is not necessarily associated with witchcraft or sorcery, though Evil Eye was something Church inquisitors were instructed to look for. Pope Pius IX was reputed to be a *jettatore*, not because it was thought he was malevolent but rather because it seemed that disasters fell upon persons and places he had blessed.



The superstitious belief in the evil eye is ancient and widespread, though certainly not universal. It is thought to have originated in Sumeria. Its origins are obscure but the belief may have its roots in fear of strangers or other social concerns and simple [post hoc reasoning](#), e.g., praise is given or a stranger passes and later a child is sick or the crops fail. Various rituals have developed to counteract the effects of the evil eye, such as defusing the praise, putting spit or dirt on a child who is praised, averting the gaze of strangers, reciting some verses from the Bible or the Koran, etc. The belief is especially prevalent today in the Mediterranean and Aegean, where apotropaic amulets and talismans are commonly sold as protection against the evil eye. Some folklorists believe that the evil eye belief is rooted in primate biology (dominance and submission are shown by gazing and averting the gaze) and relates to our dislike of staring.

The evil eye is known as *ayin horeh* in Hebrew; *ayin harsha* in Arabic, *droch shuil* in Scotland, *mauvais oeil* in France, *bösen Blick* in Germany, *mal occhio* in Italy and was known as *oculus malus* among the classical Romans.

further reading

- [Lucky Mojo on the evil eye](#)
- [The Skinny on the Evil Eye](#) by Hannah Holmes

[Dundes, Allen. editor, *The Evil Eye: A Casebook* \(University of Wisconsin Press, 1992\).](#)

[Stevens, Phillips. Jr. "Evil Eye," in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\) pp. 235-241.](#)

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spell

A spell is a word, formula, or [incantation](#) believed to have magical powers for good or ill. Spells are used by those who believe they can access [occult](#) powers or communicate with helpful spirits. Spells can be broken by counterspells or [exorcisms](#).

See related entry on [sorcery](#).

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[speed reading](#)

[spiritulism](#)



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déjà vu

Déjà vu is an *uncanny feeling* or *illusion* of having already seen or experienced something that is being experienced for the first time. If we assume that the experience is actually of a remembered event, then déjà vu probably occurs because an original experience was not fully attended to and elaborately encoded. If so, then it would seem most likely that the present situation triggers the recollection of a *fragment* from one's past. The experience may seem uncanny if the memory is so fragmented that no strong connections can be made between the fragment and other memories.

Thus, the feeling that one has been there before is often due to the fact that one has been there before. One has simply forgotten most of the original experience because one was not paying close attention the first time. The original experience may even have occurred only seconds or minutes earlier.

On the other hand, the déjà vu experience may be due to having seen pictures or heard vivid stories many years earlier, as in the case of [Virginia Tighe aka Bridey Murphy](#). Those experiences may be part of the dim recollections of childhood, mistakenly believed to have occurred in past lifetimes because one "just knows" they did not occur in this lifetime.

However, it is possible that the déjà vu *feeling* is triggered by a neurochemical action in the brain that is not connected to any actual experience in the past. One feels strange and identifies the feeling with a memory, even though the experience is completely new. That is, *déjà vu* (French for *already seen*) may not involve the faulty recognition of something one has seen before.

The term was first applied by Emile Boirac (1851-1917) who had strong interests in psychic phenomena. Boirac's term directs our attention to the past. However, a little reflection reveals that what is unique about déjà vu is not something from the past but something in the present, namely, the strange feeling one has in experiencing déjà vu. We often have experiences whose novelty is unclear and have been led to ask such questions as, Have I read this book before? Is this an episode of Inspector Morse I've seen before? This place looks familiar; have I been here before? Yet, these experiences are not accompanied by an uncanny feeling. We may feel a bit confused, but the feeling associated with the déjà vu experience is not one of confusion but of strangeness. There is nothing strange about not remembering whether you've read a book before, especially if you are fifty years old and have read thousands of books over your lifetime. In the déjà vu experience, however, we feel strange because we don't think we should feel familiar with the present perception. That sense of inappropriateness is not present when one is simply unclear whether one has read a book or seen a film before.

Thus, it is possible that the attempt to explain the déjà vu experience in terms of lost memory, past lives, clairvoyance, etc., may be completely misguided. We should be talking about the déjà vu *feeling*. That feeling may be caused by a brain state, by neurochemical factors during perception, that have nothing to do with memory. It is worth noting that the déjà vu feeling is common among psychiatric patients. The déjà vu feeling also frequently precedes temporal lobe epilepsy attacks. And, when [Wilder Penfield](#) did his famous experiment in 1955 in which he electrically stimulated the temporal lobes, he found about 8% of his subjects experienced "memories." He did not provide support for the claim that what was elicited were actually memories. They could well have been hallucinations and the first examples of artificially stimulated déjà vu.

further reading

[reader comments](#)

[Alcock, James E. *Science and Supernature : a Critical Appraisal of Parapsychology* \(Buffalo, N.Y.: Prometheus Books, 1990\).](#)

[Alcock, James. "Déjà Vu", in *The Encyclopedia of the Paranormal* edited by Gordon Stein \(Buffalo, N.Y.: Prometheus Books, 1996\).](#)

[Reed, Graham. *The Psychology of Anomalous Experience: A Cognitive Approach* \(Amherst, N.Y.: Prometheus, 1988\).](#)

[Schacter, Daniel L. *Searching for Memory - the brain, the mind, and the past* \(New York: Basic Books, 1996\), pp. 172-173. \[Reviewed\]\(#\). \[Schacter discusses déjà vu on p. 172. His discussion locates the issue as a matter of implicit memory.\]](#)

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reader comments:

déjà vu

09 Oct 1998

Congratulations on a wonderful piece of work! I regularly spend my lunchtime or an evening reading through the entries in your dictionary, and use your arguments often in discussions with less sceptical friends and acquaintances. Also, while in my case you're generally preaching to the converted I admit that there have been a few occasions (particularly the MBTI entry) which caught me unawares. I have certainly changed my perception of that "psychological indicator" now. I may write more on that later, but just quickly I'd like to comment on your Deja Vu entry. You write "There is nothing strange about not remembering whether you've read a book before, especially if you are fifty years old and have read thousands of books over your lifetime. In the déjà vu experience, however, we feel strange because we don't think we should feel familiar with the present perception. That sense of inappropriateness is not present when one is simply unclear whether one has read a book or seen a film before. "

I feel that this is not a good example, in that with my experience of deja vu I have found myself thinking "I knew you were going to say that next!" "And that ... and that ..." like I was running through a conversation I had already had. There is a reason for feeling strange in this scenario. With a book or a movie it would be normal for me to experience exactly the same dialogue etc. With a conversation, not so - unless there was some conspiracy to instigate the response! I certainly don't think I actually have experienced these conversations before, but the book/movie comparison was for me a small weakness in an otherwise convincing article.

Chris Solnordal, Melbourne, Australia

reply: I don't know what to say. I often find myself reading a book that I can't remember having read before and when things start to click that make me think that I have read the book before, I do not feel anything uncanny. I just feel more poignantly the years that have gone by that are filled with experiences I don't remember. Perhaps you have an exceptional memory, or are much younger than I am.

2 May 1997

I wanted to expand on your theory of déjà vu. Another theory, which has some

scientific merit, shows that the brain occasionally has chemical misfires. What happens is that you may experience something for the first time, for example, seeing a certain building; however, your brain misclassifies your current memory (the last few seconds) into your past memory (several years ago). Because of this, you instantly perceive, with great clarity, that this has happened to you before. Well it has! Except it was only a few seconds ago.

Sunny Hirai



[déjà vu](#)

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dermo-optical perception (DOP)

Dermo-optical perception (DOP) is the alleged ability to "see" without using the eyes. DOP is a conjurer's trick, often involving elaborate blindfolding rituals, but always leaving a pathway (usually down the side of the nose), which allows for unobstructed vision.

See **related entry** on [extraordinary human functions](#).

further reading

Benski, Claudio. et al. "Testing new Claims of Dermo-Optical Perception," in the *Skeptical Inquirer*, Jan/Feb 1998.

[Gardner, Martin. "Dermo-optical perception: A Peek Down the Nose," in *Science: Good, Bad and Bogus* \(Buffalo, N.Y.: Prometheus Books, 1981\).](#)

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

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extraordinary human function (EHF)

An extraordinary human function would be something like the ability to read messages with one's ears, forehead, fingers or some other part of the anatomy besides the eyes. There have even been accounts of reading by sitting on the message. The latter was popular in China in the late 1970's, when the study of EHF became a major research topic at Beijing University and the Chinese Academy of Sciences. The scientists seemed particularly interested in finding a link between EHF and *qi (ch'i)*, believed by many Chinese to be the fundamental life force. Their research, like similar research in the Soviet Union and U.S., covered everything from using paranormal powers to catch criminals to the training of astronauts to use such powers for spying or for guiding missiles. There are still reports from Russia alleging people can read while blindfolded and that techniques have been developed in [dermo-optical perception](#) (DOP) to teach blind people to read through their forehead or fingers using paranormal powers. Braille is a much better bet.

See related entry on [remote viewing](#).

further reading

Benski, Claudio. et al. "Testing new Claims of Dermo-Optical Perception," in the *Skeptical Inquirer*, Jan/Feb 1998.

Lyons, Arthur and Marcello Truzzi, *The Blue Sense: Psychic Detectives and Crime* (New York: The Mysterious Press, 1991) ch. 10, "The Spook Circuit: Psychic Espionage".

[Gardner, Martin. "Dermo-optical perception: A Peek Down the Nose" *Science: Good, Bad and Bogus* \(Buffalo, N.Y.: Prometheus Books, 1981\).](#)

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

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[ectoplasm](#)

[electromagnetic fields](#)



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determinism

Determinism is the metaphysical theory which holds that all events are determined by mechanistic causes. Determinism is opposed to metaphysical **libertarianism** which holds that at least some human behavior is explicable in terms of the freedom and responsibility of the agent.

See related entries on [free will](#) and [naturalism](#).

further reading

- "[Determinism](#)" *Catholic Encyclopedia*

[Dennett, Daniel Clement. *Elbow Room* \(MIT Press 1984\).](#)

[Peters, Ted. *Playing God?: Genetic Determinism and Human Freedom* \(Routledge,1997\)](#)

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devadasi

Devadasi is a religious practice in parts of southern India, including Andhra Pradesh, whereby parents marry a daughter to a deity or a temple. The marriage usually occurs before the girl reaches puberty and requires the girl to become a prostitute for upper-caste community members. Such girls are known as *jogini*. They are forbidden to enter into a real marriage.

Joginis are recognised by their copper bangles, the band they wear round their necks with a leather pendant and a long necklace with several pendants which have the image of Goddess Yellamma.*

The practice was legal in India until 1988, yet it still continues as is evidenced by the testimony of a 35-year-old former jogini named Ashama. She ran away from her village and returned to lead the fight to abolish the illegal practice. The local police do not enforce the law and the villagers themselves make no effort to abolish the heinous practice.

Since the day of the initiation, I have not lived with dignity. I became available for all the men who inhabited Karni. They would ask me for sexual favours and I, as a jogini, was expected to please them. My trauma began even when I had not attained puberty.*

Ashama was seven when her parents married her to the local god. She was recently awarded the [Neerja Bhanot award](#) for courage.

The practice of religious prostitution is known as *basivi* in Karnataka and *matangi* in Maharashtra. It is also known as *venkatasani*, *nailis*, *muralis* and *theradiyan*.*

It has been the [Atheist Centre of Vijayawada, India](#), that has been most instrumental in the movement to eradicate this pernicious religious custom.

further reading

- [Eradication of the Jogini System](#)
- [Children and Prostitution - Part I: Literature review](#)
- Human Rights Watch, *Broken People: Caste Violence Against India's "Untouchables"* (New York: Human Rights Watch, 1999), [Chapter VII](#).)

- [Breaking fetters Andhra Pradesh: A Jogini ties the knot and loosens tradition](#) by Lalita Iyer
- [Mother courage Personality: Jogini honoured for her fight against the system](#) by Lalita Iyer
- [Prized valour](#)
- [A Jogini's Journey](#)
- [200 "Potharajus" quit age-old profession](#)

[Singh, Nagendra Kumar. *Divine Prostitution* \(New Delhi: A. P. H. Publishing Corporation, 1997\).](#)

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jogini

Jogini are women forced into prostitution by a religious custom known as [devadasi](#) in India. Young girls are married to a local deity and afterwards it becomes their religious duty to provide sexual favors to the local men, usually those of the higher castes.

This religious practice was banned in 1988, but the law is not being enforced in all parts of India.

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[jinni](#)



[joy touch](#)

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reader comments:

DHEA

27 Oct 2000

I suggest linking to <http://www4.ncbi.nlm.nih.gov/PubMed>, the best source of truly scientific information on DHEA and other research in biology and medicine. This is an archive of government and private research articles from the major biology and medical journals around the world, as well as online and other government sources. Often the articles are cited in advance of publication. And lately, there is an explosion of legitimate research on DHEA, which is proving to have many uses. Simply enter DHEA into the search field.

These articles on preventative medicine and DHEA (and many other topics in medicine, of course) are by real scientists, Ph.D. and masters endocrinologists, physiologists, microbiologists, geneticists, zoologists, and MDs with additional training, not quack MDs writing for 'wellness' letters about prevention, a subject on which they have little useful to say. (Remember MDs have less than a year of real scientific training on average, and that very low level. Not to mention as little as 3 years of post grad work (where the 'doctor' title comes from.))

The abstracts are from primary research. Hundreds of research projects can be accessed here. including much of the recent very interesting research on DHEA. If you wish you can order full articles and data with a credit card.

Were you to actually read the primary research on DHEA, not summarizations by MDs with no applicable specialized knowledge, you might change your opinion of the supplement. Real detailed knowledge is so much more useful than uninformed skepticism.

Take a look at the opinions of doctors for a moment. One would do well here to avoid the opinions of people who have a financial interest in fighting alternative and preventative medicine, and at the same time use in their practice very dangerous drugs with commonplace side effect rates of anywhere up to 100%. These same MDs have themselves issued advice on prevention without any research to back up their prescriptions, often doing more harm, and often using normal protocols with 0% success or results lower than placebo rate once investigated. It has been estimated that as much as 50% of medical practice has no basis in scientific research. Often these procedures actually do verifiable harm, though.

Yet our US FDA seems to exist to promote their practice. That, and promote

the dubious dietary advice required by the clients of their parent department, the Agriculture department, advice which helps to cause many of the problems that the prescription drug industry then makes money from. (Does this strike you as too skeptical?)

Take for instance prescribed diets, with an effectiveness of 2%. Or for example, the prescription, patented artificial steroids still being given to upper GI ulcer sufferers, which can actually cause ulcers while damaging the rest of the body, patients whose problem is nearly always bacterial infection, curable with standard antibiotics with low side effects. Take for example the expensive statins [?], the low salt diets and the other drugs being given to high blood pressure and high cholesterol patients in a situation where the usefulness of these treatments is in doubt, and where sometimes serious side effects of the drugs are admitted to be about 25% in frequency. These are patients who mostly can be (or could have been) helped with lifestyle changes and some much gentler herbal treatments in use for centuries.

When it comes to drugs, the drug companies are interested in patentable products, even refusing to manufacture proven previously accepted and patented remedies if the number of customers for them falls below the hundreds of thousands, if they have fallen out of patent and become generic. Interestingly, one runs across references now to natural hormones like DHEA that are having chemical side groups and other nonsense added to them in an attempt to come up with compounds that are patentable. Presumably, none of these products will be featured on your skeptics page, though they deserve it.

MDs are the very worst source of advice on prevention, because they resent the intrusion of governments or anyone else on their perceived domain, and because they have an undeniable financial interest in seeing people getting sick enough to need cures, the post facto product of modern medicine. Go to them if you have a heart attack, a broken leg, a need for a new genetic protocol, an antibiotic. Otherwise, question their advice very closely.

Reject the guilt-by-association tactics that lump the health supplement industry and the millennia-old herbal pharmacopoeias in with psychic surgery. Remember that the MDs are the same folks that until very recently described any symptom they didn't think they understood, e.g. most allergies, as 'psychosomatic.' And remember that the self admitted rate (far too low) of iatrogenic (doctor-caused incompetence and mistakes) disease is the third leading cause of death in the US. This was 100,000 per year in 1990, close to 200,000 per year in more recent research published by the AMA. It is probably much higher, because physicians do not blame themselves for the negative effects of standard procedure, e.g. the several percent of patients who die or have severe brain damage during surgery, surgery that often could have been mooted by better prevention protocols or earlier intervention.

If health supplements and alternative medicine, widely popular, were killing a

thousand people a year, let alone 100,000 to 300,000 in the US, health supplements would not be sold in stores. It is a testament to the power of the Doctors union that they can kill so many with impunity while attempting to reduce their competition. I have witnessed this personally, as a person born into a medical family, and as research, technical and laboratory staff in hospitals, and am completely dismayed by it.

Much that alternative medicine, including DHEA use, has to offer, could save you from your doctor's dubious attentions.

Thank you for your attention, Charles Hughes USA

reply: I have followed Mr. Hughes advice and did a search on PubMed. I found articles with names like "Basal plasma dehydroepiandrosterone sulfate level: a possible predictor for response to electroconvulsive therapy in depressed psychotic inpatients" and "The Role of Atypical and Conventional PKC in Dehydroepiandrosterone-Induced Glucose Uptake and Dexamethasone-Induced Insulin Resistance." Unfortunately, I couldn't find any articles that claimed to have found good evidence that DHEA stops the aging process, reduces obesity or works as the panacea its advocates think it is.

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reader comments:

dianetics, L. Ron Hubbard & Scientology

22 Sep 2000

Several times recently it seems you've made statements that scientologists don't believe in evolution, that we are all planted here by aliens. That's about half right. In one of his earliest books "The History of Man" Hubbard claimed to have proven evolution. This 'proof' was obtained the same way as all his other 'research' (when any was actually done), by using their hypnotic regression techniques of auditing. So a scientologist would say evolution is a fact, LRH proved it.

Not being a scientologist I might not be understanding this correctly, but his story is there are two parts to a person, the spirit or thetan, and the genetic entity. The genetic entity evolved here on earth, the thetans after billions of years of reincarnation in various alien civilizations were captured and imprisoned on this planet.

As for the model of 'evolution' given in the book, I understand it is one of the most laughable books claiming to be scientifically proven. According to the book the evolutionary branch leading to humans also included such things as clams and the Piltdown man. You can read a nice commentary on the book [here](#):

<http://www.skepticfriends.org/dawnscireview.html>

Marc Berard

reply: The reference to aliens has to do with [Xenu](#) and some sort of hydrogen bomb attack on earth 75,000,000 years ago. But there is also a work of Hubbard's called "A Note on Excalibur" in which he denies evolution and Darwinian natural selection in favor of some sort of teleological vitalism.

The whole Xenu story is from OT III, which I have read, and even have scans of. It wasn't an attack on earth, he just solved the Galactic Confederations' overpopulation problems by having all 13 trillion people captured (called them in for tax audits and captured them that way) frozen, transported in space ships resembling DC 3s without the propeller. Dumped on the volcanoes, nuked, their

spirits captured by electric ribbons, show confusing 3-D films for 36 days. (guess it was the first MST3K marathon) These films implanted people with all kinds of delusions and problems, including ALL of the worlds religions. And today our bodies contain thousands of these abused spirits. All our problems and illnesses are supposed to be caused by these 'body thetans', and OT III is supposed to teach you how to telepathically contact them and make them let go.

Marc Berard

Mr. Carroll,

I just finished reading from your Skeptics dictionary on the WWW, specifically the section concerning dianetics. Yours was a view I had not heard about dianetics and scientology. After working for a scientologist who attempted to coerce me into a dianetic class, I have never picked up the book and therefore couldn't tell you about its scientific claims. I can, however, tell you that the scientologists I met while in this woman's employ did not think they were doing God's work. Quite the opposite. They were solely interested in recruiting more scientologists.

A representative from a "management" company would come to the office whenever the doctor's "engrams" kicked in (this was usually when she had difficulty with her father, who was vehemently opposed to her being a scientologist). This representative, who called himself a counselor, wanted me to allow him access to patient files so he could see which ones were likely candidates for scientology auditing. For each person the doctor convinced to sign up for classes, she received a discount on her own auditing. I know of at least two patients who did agree to taking a dianetics course on the doctors "recommendation." However, access to patient files are protected by federal law, and I wasn't about to be the one to open them to him.

The same management company wanted me to try to get blank "counter" checks from patients to keep in their files, just in case they forgot to bring their checkbook to the clinic. After double checking it with a local bank manager friend, I informed this "counselor" that such action was illegal.

Medicare patients were routinely lied to about their coverage, all under the authority and supervision of the "management" company. Also under this company, the doctor was hard pressed to get new patients. She was to turn in her "statistics" each week. These statistics consisted of me making a chart of how many patients she saw each week. No calculations of means or any other even basic statistical analysis, just a chart of the number of patients each week. They gave the doctor what the "mean" was supposed to be, and if she didn't reach it, then there was obviously a problem with the engrams and more counseling was needed. At one seminar, we were instructed on how to get patients to pay in advance for treatment, preferably in cash. While that is legal,

the doctors were told they didn't need to put such cash in a trust fund for that patient, which is illegal.

We were also taught how not to let the patients say no to treatment. We were told that anyone who believed that patients had the right to free thought should never come in contact with the patients. We were instructed to "ruin" any argument the patient had concerning their treatment. This seminar cost the doctor approximately \$1000. Naturally, this is only one account of the character of scientologists. But I don't think my opinion is solitary. Not only is dianetics not a science, but scientology is not a church. It's a mass-marketing scheme to make money. Hubbard's son wrote a book called "L. Ron Hubbard: Myth or Madman?" In it, L. Ron Hubbard is quoted as saying to a convention of science fiction writers, "If you want to make money, start a religion."

To me, that says it all.

Julie Richard

Mr. Carrol, Thank you for your reply. If you have not already done so, you may want to contact Time magazine for more information about scientologists tactics. A few years ago, they did a rather extensive cover story on scientology, and the author received numerous threats, both physical and legal in nature. So do not be surprised if you receive the same. Personally, I have no objection to your including my story to your dictionary, nor do I object to my name being used. Although I am fully aware of what scientologists can do to people who oppose them (ask the former mayor of Clearwater, Florida, who was framed and later exonerated on a hit-and-run murder charges), I have no intention of hiding behind anonymity.

Thank you for your time and effort in exposing the likes of scientologists.

Julie Richard

reply: I have only received a few notes from Scientologists, none of them threatening.

Mr. Carrol,

As far as prosecutions go, there were several high-ranking members of scientology who were arrested during a raid on scientology headquarters by the IRS. It was during this raid that the evidence was found that they had framed the mayor of Clearwater. There was also a reporter who was framed for arson. One of the scientologists arrested was Hubbard's wife. This was several years

ago (I want to say late 70's, early 80's), but the article in Time had all the details. If you ever are in Clearwater, Florida you won't believe your eyes. It looks like a navy base, with all the low level scientologists walking around in their white and blue uniforms. These are the members of the "Sea-Org" and have to sign million year contracts. They're usually people who don't have professions that will bring in thousands of dollars to the "church," so they're essentially slave labor for the hotels and stores. There are several stories of the way they live, and none are pretty.

Julie Richard

23 Jul 1997

*I just read your **Skeptic's Dictionary** entry on Dianetics with interest. I think I can add a bit to the history of this "science" and "religion."*

*Dianetics came out before the book you cite; Hubbard introduced it in the May, 1950, issue of **Astounding Science Fiction**, the earlier version of the magazine now called **Analog**. He was a popular contributor to **Astounding**, and I was a fan of his writing.*

At the time, I was friendly with the late Theodore Sturgeon, a distinguished science-fiction writer whose work I admired. Ted knew Hubbard fairly well, and told me that at a sci-fi convention the previous year Hubbard had told him and several other writers something like this: "You guys just wait. I've thought up a racket that's going to make me very rich. You'll hear about it in a few months."

Nevertheless, we were intrigued, and Ted and I tried "auditing" each other a few times. We dropped it partly because we didn't think it made much sense and, I have to admit, because Ted was much better at it than I was; he'd have made a good psychotherapist.

As to the Church of Scientology, I remember how that came about, though I'm a bit hazy on the details. The organization was then known as the Hubbard Dianetic Institute, and he had moved the headquarters several times, as it ran into tax and legal troubles of one kind or another. At some point in the 1950s, I believe it was, the Institute was headquartered in Wichita, Kansas, and having a lot of trouble with the state and Federal tax authorities. Then Hubbard had the bright idea of turning the institute into a church, which would be tax exempt! And he got away with it. So far as I know, only Germany refuses to recognize Scientology as a religion, and the "church" is fighting the German government with everything it has.

*By the way, Hubbard didn't start by using the term "engram," which of course he borrowed from biochemistry. In the **Astounding** article that introduced*

Dianetics, he called them "Norns," after the witches of Norse mythology. When the book was published, his Norns had been transmogrified into engrams.

*Thanks for the **Skeptic's Dictionary**. I love it. It's my belief that the current popularity of every kind of nonsense from acupuncture and astrology to reflexology, homeopathy, naturopathy, therapeutic touch and all the other "holistic" therapies is the result of a breakdown in our educational system some time after World War II. People who have been taught to think aren't susceptible to this kind of stuff.*

Keep up the good work.

Al Berger

reply: I wish it were simply a matter of a broken educational system. We might be able to fix that. I think the tendency to magical thinking is rather basic and universal. Compulsory education for the masses has been somewhat successful in mitigating the spread of weird beliefs and irrational thinking. But it is nearly impossible to counteract the power of the mass media to glamorize and exaggerate; to distort and pervert; to prey upon irrational desires, fears and hopes; to mystify the mundane and validate the irrational as it entertains. Traditional religions used to satisfy the thirst for the magical, but they have been unable, for the most part, to modify themselves sufficiently to compete with forces which can make an Andrew Cunanan seem more significant and interesting than a Justice William Brennan who died on the same day as the mentally ill killer but who received much less publicity.

23 Oct 96

I'm someone who's been fascinated (even morbidly so) by Scientology for many years now. The following comments may be a bit of a quibble but after reading the text I can't just put them aside.

In the third paragraph you mention that Scientology has no 'cosmological myths.' What, however, of the various stories of past star-spanning civilizations such as the Marcab Confederacy; the space-tyrant Xenu (or Xemu, take your choice); the 'loyal officers' who defeated and imprisoned him in the so-called 'Wall of Fire' (the notorious incident which happened 75 trillion years ago which involved detonation of h-bombs near well-known volcanoes which didnt even exist and is supposed to be the root cause of all humanity's current travail) and who are echoed today by the Scientology 'monastic' order, the Sea Organization? Would those not suffice as such myths, or do I misuse the defintion?

reply: These stories sound like the stuff of fantasy and science fiction. Some might find such stories interesting, entertaining or even enlightening. The

stories may even be myths. But they're not *cosmological*, i.e., they are not an attempt to answer fundamental ontological questions about the nature or origin of the cosmos (universe), such as "Why is there something rather than nothing?" Or "How did the cosmos originate?" "Is there a creator of the universe?" etc.

As I said, the above is really quibbling on my part, I'm sure. On the whole, the entry draws connections I've only speculated about with my limited (and largely self-) philosophical training. To put a point on it, I've always understood that LRH really only badly reinvented the wheel, just not exactly how. Now, however, I have a clue. Thanks.

And I cannot but agree that no matter how Scientology positions itself in the lives of its followers, it is not a religion at all.

Justin the Blue

23 Dec 1996

I just want to say that Scientology got me off drugs when I was a teenager and has given me a purposeful direction in life.

I have a strong desire to actually DO something about some of the problems of our society rather than just talk about them. I know that [Narconon](#) (the drug rehab that uses L. Ron Hubbard's technology) is an effective solution to addiction since it saved my friend's life from alcoholism. While I worked there, it also saved the life of a man who had been addicted to injectable methadone for 14 years! I also know that Criminon (the criminal rehab that uses LRH technology) is effective, as is Applied Scholastics (LRH's education technology and teaching method) in combatting illiteracy. These are just a few of the solutions that LRH discovered and made available to anyone who wishes to use them. For more details, have a look at <http://www.scientology.org>.

By telling people about these solutions (incidentally, none of which have anything to do with religion or belief in anything), I know I can make the world a safer, saner and happier place for all.

John Wood

Read on for some more comments from Mr. Wood.

28 Jan 1997

According to the US government, courts in many countries around the world and academic experts, Scientology is a bona fide religion.

reply: According to our Constitution, the U.S. government is not supposed to make any laws respecting religion, which I take to mean that the government is not legally allowed to define what is or isn't a religion. I've never taken a vow of silence on the matter of defining religion. Neither did L. Ron Hubbard. As for the rest of the world, they can call Scientology anything they want. Finally, I have yet to see an academic expert who has published a book on world religions which even mentions Scientology, much less considers it to be a religion. When the historians of religion start calling Scientology a religion, I may change my mind.

Who says myths have anything to do with it?

reply: Scientology has fantasies, not myths. A religion without myths is a mythtery to me.

Our creed can be found at the back of the "What is Scientology" book. It redefines the word "ethics" and puts the subject to practical use for individuals and helps countless organisations around the world succeed in business.

reply: Secular humanists have a creed, too. That doesn't make secular humanism a religion. I have to admit, though, that if your new ethics is aimed at making money, then you are in harmony with many Christians who seem to think that God shows His love by making people rich.

There is nothing obscure in Scientology - it is all extremely precise and exact. There is no dogma in Scientology. Yes, LRH was a science fiction writer. So what? Jesus was a carpenter.

reply: There is nothing obscure in the kabbala, either. And I used to be a taxi driver.

I haven't had a chance to read the rest of this page but if it is as inaccurate as the first paragraph, I urge you to delete it immediately. The information I have provided is not difficult to find. It's available on our web site and is in the "What is Scientology" book which can be found in almost every library in the world! You are, therefore, simply speading lies, knowingly, about my religion. You're not anything to do with the German government are you by any chance?

Regards,
John Wood

reply: Be careful, John. There are scientologists in Germany, too. Some of them may even be in the government. As for deleting this page, sure John. Why not? I'll delete it just for you.



[Dianetics](#)

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 [Uri Geller](#)

[ghosts](#) 

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papyromancy

Papyromancy is [divination](#) by folding paper.

According to some [psychics](#), those who know how to divine the future with paper could have forewarned us of the attacks on September 11th by [folding a \\$20 bill](#). A proper folding would also have revealed who was the main man behind the attacks.

Some consider folding money to retrodict the past to be nothing more than a parlor game. A true papyromancer, they say, can crumple up any piece of paper, unfold it, and predict the future from the creased lines in much the same way a [palmist](#) reads the lines of the palm or a [metoposcopist](#) reads the lines on your face.



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scapulimancy

Scapulimancy is a decision procedure used by the Naskapi Indians whereby the shoulder of a caribou is held over hot coals causing cracks in the bone which are then used to direct a hunting party.

What is interesting about such decision procedures as this and reading [crystal balls](#), entrails, livers, [palms](#), [ouiji boards](#), [biorhythms](#) or [astrological charts](#), [polygraphs](#), "scientific jury selection," the "[blue sense](#)", "etc., is that they "work!" A decision is always made after using them. It may not be the *right* decision or the *best* decision, but it is a decision nonetheless.

The fact that a decision is made is a relief, a comfort; it is satisfying to remove uncertainty and indecision. Occult and questionable decision procedures are likely to be especially attractive in situations where logic and rational thinking appear useless, such as in deciding whether to marry someone or where to go hunting when it doesn't seem that there is any game anywhere or where to invest in the stock market.

Irrational decision procedures can seem quite rational to their users not only because they "work" in the sense of arriving at a decision but they "work" in the sense of arriving at an acceptable or demonstrably satisfactory outcome, i.e., you're happy with your wife (or glad you didn't get married); the hunters find some game; your stock portfolio isn't much worse than anyone else's, maybe even a little better, etc.

further reading

[reader comments](#)

Lyons, Arthur and Marcello Truzzi, *The Blue Sense: Psychic Detectives and Crime* (New York: The Mysterious Press, 1991).

[Nickell, Joe, *Psychic Sleuths* \(Buffalo, N.Y.: Prometheus Books, 1994\).](#)



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stichomancy

Stichomancy (*literally*, **divination from lines**) is the practice of seeking answers to the great metaphysical questions, as well as trying to gain insight into the meaning of existence and reality, by reading random passages from a book such as the Bible or the [I Ching](#).

Last updated 01/01/02

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reader comments:

divination

29 Feb 2000

Regarding your 'Skeptic's Dictionary' entries on divination and cold reading, I notice a certain lack of the usual reader comments telling you that you don't know what you're talking about. Please allow me to get in the first 'personal experience' shot on this occasion: You are absolutely right on the basics of fortune-telling. Allow me explain why I say this with such a degree of confidence. A few years ago I had me fortune told with uncanny accuracy and was deeply impressed. Only afterwards did I think back and realize that everything I had been told was either 'fishing' with a fair degree of inspired guesswork, or consisted of things I had already told the fortune teller, which he then recycled back to me. Intrigued, and eager to find out whether my skeptical interpretation was correct, I bought a pack of Tarot cards and learnt a bare minimum of the jargon. I had just moved to a foreign country to work, which gave me a huge advantage in being 'exotic and mysterious' and also meaning that nobody knew about my skepticism: I could safely claim to have learnt cartomancy from my [fictitious] gypsy grandmother [or some such nonsense] without anyone calling me out. Within a short time, I had developed a reputation as a brilliant fortune teller and had people coming round to my house offering me money for readings (which I did not take). Two points stand out from all this: firstly, the secret of accurate fortune telling is a trick, more 'sleight of thought' than 'sleight of hand' but using a similar distraction technique; and secondly, it relies almost wholly upon the querent's wishful thinking and lack of accurate self-perception. Nothing that I have seen since my fortune-telling days has convinced me otherwise. If anyone does write to you saying 'Yes, but I really can tell fortunes', refer them to this answer from me: 'So can I, and there's nothing mystical about it at all, however much you may delude yourself'.

Tim Byard-Jones

31 Mar 1997

*I like your entry on divination. I was especially intrigued by **aeluromancy** (dropping wheatcakes in water and interpreting the result) which I guess is not to be confused with dropping cats in water and interpreting the result (which I would think would also be "aeluromancy" or maybe "ailuromancy" or "eluromancy"). Speaking of which, for a suitable fee, I could tell you with amazing accuracy what the results of dropping a cat in water would be. Does*

that mean I'm psychic?

Personally, I think oinomancy would be a lot more fun.

Karl Jennings

reply: Actually, I think dropping cats in water is a type of *hydromancy*, though it depends on what kind of water is used. I think the practice of throwing women into rivers to divine whether they were witches or not (if she sinks and drowns, then she's not a witch) falls into this same category.

As far as being psychic goes, I feel safe in saying that you are probably as psychic as the next person.



[divination](#)

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the divine fallacy

The divine fallacy is a species of non sequitur reasoning which goes something like this: *I can't figure this out, so God must have done it. Or, This is amazing; therefore, God did it. Or, I can't think of any other explanation; therefore, God did it. Or, this is just too weird; so, God is behind it.*

This fallacy is also a variation of the alien fallacy: *I can't figure this out, so aliens must have done it. Or, This is amazing; therefore, aliens did it. Or, I can't think of any other explanation; therefore, aliens did it. Or, this is just too weird; so, aliens are behind it.*

Another variation of the fallacy goes something like this: *I can't figure this out, so paranormal forces must have done it. Or, This is amazing; therefore, paranormal forces did it. Or, I can't think of any other explanation; therefore, paranormal forces did it. Or, this is just too weird; so, paranormal forces are behind it.*



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reader comments:

Dogon and Sirius II

11 Feb 99

*Hi, I got to your site from Hotbot, while looking for information about the Dogon tribe. I don't know how long it's been since you updated the page but you may be interested to know that the Dogon tribe investigators had (publicly, since 1976) claimed that they also had knowledge of a third star in the Sirius system. And that in 1995, that third star **was** found.*

In 1995, the French Astronomers Daniel Benest and J. L. Duvent published the results of years of study in the journal Astronomy and Astrophysics ["Is Sirius a Triple Star?" Volume 299, 1995 pages 621-628. Article received 11th Oct 1994, and accepted for publication on 8th November 1994.] stating that a small red-dwarf star seems to exist in the Sirius star system. They have detected a perturbation in the orbit that cannot be explained by any other means.

*I'm all in favor of critical thinking. Loved Sagan's book, *The Demon Haunted World*. But information like this is readily verifiable and bears consideration before you dismiss Temple's work as that of a crank.*

John Finnan

reply: OK, I've considered this new information and I still dismiss Temple's work as that of a crank.

1 Apr 1996

Upon reading the piece on the Dogon and the Sirius connection I was disturbed at how quickly you dismissed seven years of research. I wonder if you have actually read the book. As far as Carl Sagan is concerned, his explanation of a local connection is rather feeble.

For one thing, the Dogon have had the Sirius based traditions for many generations before Carl Sagan or the French anthropologist happened upon their existence.

There is a big difference between a "transmission" of a concept (i.e.. white dwarf = heavy) and the actual tracking of an "invisible" star. As I mentioned above, these people had information on Sirius A and B long before Griaule and Dieterlan came onto the scene. Unless Europeans can travel back in time and affect several generations of the Dogon (i.e.. "transmitting" scientific

cosmology in terms the Dogon could translate into entire cultural identity), Sagan's explanation is unfounded. Sagan's reputation as the debunker's debunker may shed some light on the incredulous explanation given. I would like to ask you that given the more than remote possibility that he is incorrect, how would you explain the Dogon knowledge of Sirius B. I would also like you to know that the Sirius B was not even photographed until 1970 by Irving Lindenblad of the US Naval Observatory. Also, According to Arthur C. Clark'

"...Sirius B is about magnitude 8 - quite invisible even if Sirius A didn't completely obliterate it"

Temple transcribed Griaule and Dieterlen's article called "A Sudanese Sirius System". It describes the Sigui ceremony which occurs every 60 years. Below is a sample:

*"More consistent evidence of the celebration of the Sigui is provided by the large wooden mask, whose carving is one of the major concrete purposes of the ceremony. This mask -usually of considerable size - is seldom used and is kept in some shelter or hideaway in the rocks, along with those which have been carved at previous ceremonies. The care with which these masks are treated - for in some ways they are the village archives - means that it is not uncommon to come across series of three or four of them, the oldest of which date back, respectively ***to 1780 and 1720***, give or take a year or two. In exceptional cases, when the shelter has been well selected and under constant surveillance, the series may be longer still; thus at Ibi, in 1931, nine poles were counted, and these must have succeeded three more which had been reduced to a few fragments and piles of dust and were still visible; as were the special places earmarked for them at the back of the shelter, all perfectly protected from damp, vermin and animals. The oldest in the series of nine, which showed a continuous progression of ageing in the course of time, thus date from the beginning of the ***fifteenth century***; and if the three others are taken into account, the remnants of the earliest would date back to the first half of the ***thirteenth century.***" *The Sirius Mystery* pg.37-39*

Since neither the Europeans or anyone else had access to a telescope in the thirteenth century let alone the 1700s, Sagan's "transmission" idea is laughable. Now, one could dismiss the accounts presented by the French anthropologists or even that the Dogon people quickly developed ageing techniques to wood in order to fool all of us that the world was visited by advanced beings. What a terrific hoax this would be.

My annoyance here is not with the possibility that Temple's idea is wrong for

he states that he could very well be wrong, but with the blindness and pseudo-intellectualism burped up by skeptics. If you are a true skeptic then you would withhold your judgments until the facts present themselves. Either you didn't read the book or you simply dismissed the idea before it had a chance, for the facts within this book are extremely difficult to dismiss or counter.

As far as Temple's "one" piece of evidence (the sand diagram), by reading Griaule and Dieterlen's account you would see that there is more than "one" piece of evidence. In fact there are many and in several different places (this being the individual villages that house the masks and poles).

I find it difficult to understand why someone would be so entirely close-minded. This particular book could only be dismissed by the most narrow of minds. Do you also dismiss the scientific attitude that life on other planets is not only probable but the chances of no other life is improbable.

Dr Su-Shu Huang of the Goddard Space Flight Center, Maryland has written,

*"planets are formed around the main-sequence stars of spectral types later than F5. Thus, planets are formed just where life has the highest chance to flourish. Based on this view we can predict that nearly all single stars of the main sequence below F5 and perhaps above K5 have a fair chance of supporting life on their planets. Since they compose a few per cent of all stars, life should indeed be a common phenomenon in the universe."
The Sirius Mystery pg.14*

There is an quick history of Sirius B discovery on page 33-34 of Sirius Mystery. 1862 was the first time, using a telescope, that Sirius B was seen with the human eye. Unless the Dogon have supereyes or some superhuman ability it is impossible for them to have developed their calendar without help.

*I wonder if you would be laughing at Galileo....
--Jason Gray*

reply: As Sagan once noted, remember that they also laughed at Bozo the Clown.

04 Aug 1996

Although Mr. Jason Grey's tone was a tad on the condescending side, he makes some essentially valid points. From my limited knowledge of this mystery (Reader's Digest mystery type books:), I do recall mention of Dogon religious doctrine proclaiming that a single inhabited planet orbits the Sirius binary system. Wouldn't the space telescope be able to detect with some degree of accuracy a wobble in the orbits of both stars if a planet did indeed

exist in that star system? I think it would be well worth the tax payer's money to point the space telescope at the Sirius system and validate/invalidate this mystery once and for all!!!

Steven Rutter

reply: I can think of a few other projects I'd rather see our taxes supporting, like an Institute for Higher Skepticism.

28 Oct 1996

I don't know whether there's a real mystery involving the Dogon and Sirius B or not. I do know that Randi has made an absolute fool of the "skeptics" who take his critique of Temple's book at face value.

Firstly, Temple never claims that the Dogon themselves have or have had contact. He hypothesizes that the contact took place at around 3000 BCE.

*Second, the famous sand drawing. On page 47 of Temple's book you can find the "censored" version of the diagram--a full-page reproduction, no less! While Temple does also give versions omitting some elements (to remove symbols irrelevant to his particular point), neither of the two corresponds with the version Randi gives--one includes less, one more. So, why haven't any of the "skeptics" had the skepticism to check Randi's reference? Just flipping through Temple's book would fully discredit what Randi says. Why don't any of them call Randi on this: shouldn't they want to expose this kind of fraud? Or should we have taken Randi's title [**Flim-Flam!**] at its word?*

Dan Clore



[Dogon & Sirius](#)

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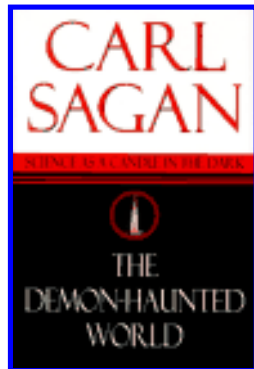
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The Demon-Haunted World - Science as a Candle in the Dark

by [Carl Sagan](#)

(New York: Random House, 1995)

The Demon-Haunted World is a collection of twenty-five essays, several written with Sagan's wife, Ann Druyan. The essays range in scope from eloquent paeans to science to impassioned denunciations of bigotry, from humorous accounts of a variety of pseudoscientific endeavors to serious attempts to understand the nature of alien abduction delusions. With intelligence and wit, and the rational calmness that is his trademark, Sagan takes on a wide variety of topics, among them: alien abductions, astrology, Atlantis, the *Bell Curve*, channeling, crop circles, demons, electromagnetism, ESP, the face on Mars, fairies, faith healing, magic, miracles, prayer, religion, Roswell, satanic rituals, therapy, and, of course, one of his favorite topics, UFOs and extraterrestrials. Only Velikovsky gets ignored this time around. Through each of his essays he extols the virtues of skepticism, empirical evidence and control studies, while uncovering a multitude of errors and weaknesses in the positions of occultists, paranormalists, supernaturalists and pseudoscientists. And he does so with extreme grace, gentility and civility.

In fact, if there is anything I disagree with in Sagan's book it is probably his encouragement of skeptics to be as civil as he is in dealing with what skeptics see as the dark that extinguishes the candle. He writes

...the chief deficiency I see in the skeptical movement is in its polarization: US vs. Them--the sense that *we* have a monopoly on the truth; that those other people who believe in all these stupid doctrines are morons; that if you're sensible, you'll listen to us; and if not, you're beyond redemption. This is unconstructive....whereas a compassionate approach that from the beginning acknowledges the human roots of pseudoscience and superstition might be much more widely accepted.

If we understand this, then of course we feel the uncertainty and pain of the abductees, or those who dare not leave home without consulting their horoscopes....such compassion for kindred spirits in a common quest also works to make

science and the scientific method less off-putting, especially to the young.

Many pseudoscientific and New Age belief systems emerge out of dissatisfaction with conventional values and perspectives--and are therefore themselves a kind of skepticism.

I can't deny that there is a strong appeal in this call for compassion, for seeing the occultists of the world as after the same thing skeptics are after, and for recognizing the skepticism in those who adhere to pseudoscientific or New Age spiritual notions. If the goal were to try to get the true believer to give up his or her beliefs, then I would agree that an aggressive campaign which arrogantly maintains that it is better to live according to evidence than according to wishes might not be the best tactic. But, the aggressive, blunt, seemingly arrogant approach might be best if the goal is not to convert true believers to skepticism but to provide ideas which will counterbalance the plethora of occult, pseudoscientific, supernatural and paranormal notions which pervade just about any atmosphere in America, or the world, for that matter.

These aggressive methods may be the best ones if the goal is not to help persons who have been encouraged by therapists to think they've been experimented on by aliens, but rather to deter present and future therapists from encouraging patients to accept such beliefs as true and from using hypnosis to recover repressed memories. Such methods can evoke false memories of terrible things which probably never occurred. There is little to be gained, I think, in being compassionate with therapists who have no regard for truth and who encourage their patients to remember childhood abuses regardless of whether the abuses happened or not. Therapists who care for the truth are more likely to get aroused and make some effort to halt the abuses of their colleagues if we make a loud enough noise. And perhaps a future patient of one of these abusive therapists will have heard our angry voices and remember what we've said and question the therapist's methods.

Blunt and direct methods may be called for if the goal is not to persuade someone to give up astrology, crystals or tarot cards, but rather is to try to prevent someone in the future from seriously considering such things as reasonable guides to life.

I agree that it is unconstructive to be dogmatic, to call other people 'morons' or their ideas 'stupid.' I also agree that compassion is the appropriate response for people who have been duped by deluded therapists into believing incredible and harmful things. But I don't think it is the appropriate response to the therapists. We should go after them, and go after them aggressively with the bluntest instruments our language can muster. Likewise for the purveyors of pseudoscientific and New Age rubbish. To the L. Ron Hubbards,

Helen Schucmans, Aleister Crowley's, John Macks, Budd Hopkins and Wade Quattlebaums of the world I say *show no mercy!*

Although some skeptics may take issue with Sagan's genteel style and grandpaternal tone, none of us will find fault with his skilful and recurring emphasis on critical thinking. The more blunt and vulgar among us refer to the need for a crap detector; Sagan provides instruction for building one's "baloney detection kit." He covers several common fallacies and ways to avoid them. He emphasizes the need for skepticism in critical thinking and the necessity for verification and corroboration of claims before accepting them. And he returns again and again to the role of the mass media in forming our characters and opinions. He is especially concerned with the fact that more and more mass media operations are coming into the possession of fewer and fewer individuals or groups. The potential for abuse of power is obvious but, as Orwell said, we have to keep pointing out the obvious. Sagan is hopeful that the internet will be an antidote for this concentration of control over information. So am I.

Another favorite theme of Sagan's is the need for scientists to be communicators, to use the media and the classroom to explain to the masses the truths and beauties of science, instilling in them the sense of wonder which drives people like himself. His criticisms of typical science instruction in America and the paucity of science writers for popular markets are right on target and worth studied perusal by science educators.

It is easy to recommend a book so reflective of one's own views, especially views which are skeptical of belief in God and an afterlife. It is even easier to recommend a book which, even though it covers topics and ideas the reader has gone over a thousand times, does so in a style which makes them seem fresh, is rarely dull, and quite frequently stimulates the reader to want to think about these issues more deeply and wonder if there isn't more he could be doing to make this world a better, saner, more rational place for our children and grandchildren.



[Order from Amazon Books](#)

R.T.C.
July 10, 1996

postscript: Carl Sagan died on December 20, 1996, and it now seems apparent that *A Candle in the Dark* was meant to be his epitaph. Nothing could be more fitting, for if anyone has been light in these Dark Ages, it was [Carl Sagan](#). But he was more like one of [Velikovsky's](#) comets, showering the earth with gifts as he passed through.

08 Nov 1996

I have visited your page several times in the past 6 months, especially the skeptic's dictionary -- it's great! But today I discovered and read your review of Sagan's book, *The Demon-Haunted World*, and I just had to write and let you know that I think your review is accurate and very well-written. I am about two-thirds of the way through the book now and I agree with everything you said. I have been the most surprized by the amount of criticism Sagan levels at religion. He is usually careful not to offend the religious too much, but in this book he writes some scathing observations on various aspects of religion through the ages. At this point (I have just finished reading chapter 16), the only criticisms of the book I would make are that I don't like the way Sagan refers to nature as Nature (too New-Agey for me) and I think he is far too kind to those who cling to irrational beliefs in the supernatural, paranormal, and pseudoscientific and to the likes of John Mack and the other so-called therapists who plant false memories in susceptible people. I prefer the Randi approach myself - blunt and direct. In closing, thanks for the outstanding web page - a candle in the dark.

Nancy Todd

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Last updated 01/07/02



[Recommendations and
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E-rays (aka *Erdstrahlen* and earth rays)

E-rays are said to be evil rays emitted from below ground and detectable only by [dowsers](#) with [paranormal](#) powers. These evil rays are invisible and undetectable by ordinary people using ordinary scientific equipment. E-rays are blamed for everything from cancer in humans to wilting in plants. E-rays are especially bad for one's [aura](#).

The belief in E-rays is especially popular in Germany where some people sleep with protective sheets of black plastic under their beds for protection. Specialists in E-ray detection practice a German variant of [feng shui](#), advising individuals and government employees on safe furniture arrangement.

further reading

[reader comments](#)

- ["Dowsing - Science or Humbug?"](#) by Rasmus Jansson

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

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[enneagram](#)

[ESP](#)

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ley lines

Ley lines are alleged alignments of ancient sites or holy places, such as [stone circles](#), standing stones, cairns, and churches. Interest in ley lines began with the publication in 1922 of *Early British Trackways* by Alfred Watkins (1855-1935), a self-taught amateur archaeologist and antiquarian. Based upon the fact that on a map of Blackwardine, near Leominster, England, he could link a number of ancient landmarks by a series of straight lines, he became convinced that he had discovered an ancient trade route. Interest in these alleged trade routes as sources of mystical energy has become very popular among New Agers in Great Britain.

Today, ley lines have been adopted by New Age occultists everywhere as [sources of power](#) or energy, attracting not only curious New Agers but aliens in their UFOs and locals with their [dowsing](#) rods. These New Age occultists believe that there are certain sites on the earth which are filled with special "energy." [Stonehenge](#), Mt. Everest, [Ayers Rock in Australia](#), [Nazca in Peru](#), the Great Pyramid at Giza, [Sedona \(Arizona\)](#), [Mutiny Bay](#), among other places, are believed to be places of special energy. There is no evidence for this belief save the usual subjective certainty based on uncontrolled observations by untutored devotees. Nevertheless, advocates claim that the alleged energy is connected to changes in magnetic fields. None of this has been scientifically verified. Maps have been produced, however, with lines on them which allegedly mark off special energy spots on earth. For example, the Seattle Arts Commission gave \$5,000 to a group of New Age dowsers, the Geo Group, to do a [ley line map of Seattle](#). Photographs of the result, which looks like a defaced satellite photo of the Seattle area, can be purchased for \$7.00 from the group. It proudly proclaims that the "project made Seattle the first city on Earth to balance and tune its ley-line system." The Arts Commission has been criticized by skeptical citizens for funding a New Age, pagan sect, but the artwork continues to be displayed on a rotating basis in city-owned buildings within Seattle.

Citizens had every right to be skeptical. Here is what the Geo Group has to say about their project:

The vision of the Seattle Ley-Line Project is to heal the Earth energies within the Seattle city limits by identifying ley-line power centers in Seattle, neutralizing negative energies and then amplifying the positive potential of the ley-line power centers. We believe the result will be a decrease in disease and anxiety, an

**increased sense of wholeness and well-being
and the achievement of Seattle's potential as a
center of power for good on Spaceship Earth.**

The Geo Group's vision is little more than a profession of faith. It is reminiscent of the claim of [Transcendental Meditation](#) that group meditation could reduce local crime rates. The Geo Group's methods have been just as effective.

further reading

[reader comments](#)

- [Society of Ley Hunters](#)
- [Earth Mysteries: Ley Lines](#)
- [Ley Lines/Earth Energy Lines](#)

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The Quadro QRS 250G "Detector"

"If it works, I think it could be a real good tool and deterrent in our school system," said one high-school principal. *Gastonia Gazette*, April 6, 1995

The Quadro QRS 250G (the Quadro Tracker) is a plastic box with an antenna which was sold by Quadro Corp of Harleyville, South Carolina, as a detector of just about anything: drugs, weapons, golf balls, even lost coon dogs. Wade Quattlebaum's invention sold for about \$1,000 each. Some schools and government agencies spent as much as \$8,000 for the device which turns out to be good only at detecting suckers who can be easily parted with other people's money (i.e., our taxpayer dollars). Sandia Labs of Albuquerque, New Mexico, took one apart and discovered that there is nothing inside. It probably costs about \$2 to make. For their trouble, Sandia labs was threatened with a lawsuit by Quadro. Quadro did not threaten to sue the FBI, however, when its tests determined that the Quadro Tracker was incapable of detecting anything. According to the FBI, the device was little more than a piece of plastic. Quadro may have had nothing in their Tracker but they certainly had chutzpah in their marketing: the FBI was one of their target markets.

On January 19, 1996, the FBI Economic Crimes unit seized the merchandise and records of the Quadro Corporation and arrested its officers. In April, 1996, a federal judge issued a permanent injunction against Quadro Corp, which was convicted of engaging in a mail and wire scheme to defraud customers, under statutes 18 U.S.C. 1341 and 1343. In court it was pointed out that the Quadro Detector had been carefully examined and that no "inductors, conductors, or oscillators" were found, though Quadro advertised those as the working parts of its "secret technology." Quadro claimed that theirs were not "ordinary" inductors, conductors, or oscillators. Theirs are of an advanced sort not yet known to "regular science."

The FBI sent out a bulletin to their branches warning that "A device marketed to law enforcement agencies nationwide, the Quadro Tracker...is a fraud. All agencies should immediately cease using the device...." Even so, several law enforcement officers, as well as several school principals, still swear by their QRS 250G Detectors.

How could such smart people be so easily deceived? Perhaps it was the technical sounding literature sent out by Quadro Corp. Quadro claimed that the device uses "tuned frequency chips" to hone in on its target:

The frequency chip is oscillated by static electricity produced by the body [of the user] inhaling and exhaling

gases into and out of the lung cavity. This static electricity is propagated on the surface of the body to the tracker which utilizes the charge to oscillate the chip....[A]ll matter contains exact molecular frequencies. When a magnetic field is created by a contained electrically charged body moving through space at a perpendicular angle moving to its direction, and that field is brought into alignment with another exact field, resonating at the identical frequency modulation, then both objects attract, just as two bodies are attracted toward each other in a gravitational field.

Most purchasing agents would be ignorant of electrical engineering and would not know that the above gobbledygook is gibberish.

Perhaps potential buyers were impressed by the names of the people who endorsed the device:

William Koopman, Val-Comm Inc., Albuquerque, NM

Steve Lassiter, Drug Task Force, Albuquerque, NM

Larry DeWees, Principal, Farmington High School, NM

Clifford Weber, School Supt., Bloomfield, NM

Nancy Radford, Vice-Principal, Bloomfield H.S., NM

Troy Daniels, Resource Officer, Bloomfield H.S., NM

Ralph Navarre, Principal, Mesa Alta H.S., Bloomfield, NM

Capt. Ben Boozer, Dept. of Corrections, Crozier, VA

Raymond Gomes, Inspector General, Richmond, VA

Sgt. Marilyn Chambers, National Guard, Richmond, VA

Jim Morrison, National Guard, Richmond, VA

Brian Clements, Dir.of Security, Galena Park, Houston TX

Lt. Bill Munk, Police Department, Austin, TX

Don Plybon, US Customs, Charleston, SC

Cpl. Billie Johnson, North Charleston PD, SC

Bruce Parent, FL Dept. of Trans., West Palm Beach, FL

Pip Reaver, Adlerhorst Training School, Riverside, CA

Pete Blauvelt, Nat. Alliance for Safe Schools, Lanham, MD

Michael Ferdinand, Interquest Group, Inc., Houston, TX

Any intelligent investigator should know that [testimonials](#) are not scientific evidence. Such testimony should be considered worthless when considering the purchase of allegedly high-tech commercial products.

James Randi, in one of his Hotline reports, noted that he had heard from Interquest Group, Inc., Vice President Michael Ferdinand. Interquest, says Randi, is "a reputable and well-known company which train dogs for use in contraband detection." Their endorsement of the Quadro Detector quoted them as saying

"Using the Quadro as a stand-alone unit certainly locates the drugs..."

and

"Since I discovered the Quadro unit, I have introduced it into my K-9 teams with great effect. In fact, I am now helping schools to acquire their own units..."

Randi continues:

But after Interquest personnel attended the mandatory training session in Harleyville, S.C., and had the device examined by Southwest Research Institute (SRI) in San Antonio, Texas, the tune changed. Says Ferdinand now:

We, too, fell victims to the hustle of the 'Quadro Tracker'.... we now recognize that the entire training mission was staged.... based upon the conclusions of [the SRI] report and our inability to achieve any form of consistent results with the product, we disassociated our company from the Quadro Corporation. At present, we remain some \$10,000 in the hole as a result of our encounter with the Quadro Corporation as well as sustaining a certain degree of damage to our otherwise flawless reputation....

The SRI lab report stated in its conclusion that:

the tracker is not functional and the operating principle suggested by the manufacturer is scientifically highly questionable at the very least. Both analyses support the suspicion that the tracker is a fake device.

SRI tested the two "Training Samples" sold to Interquest with the Quadro,

and found nothing inside but "epoxied scrambled dead ants."

One of the other people listed in the Quadro list of testimonials denies he ever said what they say he did. Corporal Billy Johnson, a K-9 officer with the North Charleston police department, was quoted by Quadro as saying, "There is no doubt that the Quadro Tracker can do everything the dogs can do, and from a much greater distance." Corporal Johnson told Randi that he never said any such thing and that his department did not purchase the Quadro Detector.

Randi also heard from the boss of Don Plybon, the U.S. Customs agent listed as endorsing the Quadro toy. Writes Randi:

Quadro had published a quotation from Plybon in which he related an account of a "positive for gunpowder alert" that the stick gave him when pointed at a Russian plane at Charleston, SC, airport. The customs agent, said the Quadro ad, decided that "the plane was loaded with used guns." But when they then unloaded the cargo and searched the plane, they found nothing. So, says the ad, they "checked the grease on the ramp" and decided that the Quadro couldn't be wrong, that there must have been "something in the grease" that made it "alert." What really happened? Gee, could it be that the customs agent made a boo-boo, because he was naive enough to think that the thing actually worked? Why else would his boss call me and forbid me to write to agent Plybon any more? And where does he get the colossal nerve to forbid me to do anything? I made my opinion quite clear to him, I assure you. When the boss has to call me to tell me to stop challenging his employee, I begin to wonder... In any case, Quadro has been warned to stop using agent Plybon's name in the advertising they can no longer send out.

Quadro may be closed down but there are others waiting in the wings to surpass even Quadro's wildest claims. [DielectroKinetic Laboratories \(DKL\) brought out its LifeGuard](#), with models ranging from \$6,000 to \$14,000. DKL claimed its device could identify a human heartbeat 500 yards away, through concrete, earth, or water. The DKL LifeGuard was tested by [Sandia Labs](#) in April, 1998. The device failed to perform any better than expected by chance. In October 1998 Sandia took a DKL LifeGuard apart and found that the [electronic components could not possibly function as advertised](#).

Finally, there is the Super-Sensor Dowsing Rod which can be ordered from [Psi-Tronics Visions](#). Here is what Psi-Tronics says you can do with their device:

You can dowse the past, present or future. Future events

are subject to the laws of probability and free will so it doesn't always work for the lottery. But in other uses you are limited only by your imagination. Locate underground water, pipes, minerals, oil, etc. Locate fish and game animals, or missing persons. I know people who use it to predict the stock market, marketing trends, business opportunities, and to isolate production problems. I know mechanics who dowse to determine mechanical problems in cars, and other machinery and maintenance workers who use dowsing to find underground water lines, leaks, and electrical problems. Professional health workers, chiropractors, dieticians, and people who diagnose illness use dowsing to check their findings. Holistic healers and herbalists use it to prescribe vitamins. In the home, use it to find lost articles and to make decisions. Dowse the telephone book to find a number or the yellow pages to determine who will serve you the best. Check up on your kids to see if they are all right. Check to see if the weather will be good, and what clothes you should wear.

How many public agencies will spend taxpayer money on this magical dowser or other equally useless devices marketed with equally preposterous claims?

further reading

- ["Dowsing for Dollars: Fighting High-Tech Scams with Low-Tech Critical Thinking Skills"](#) by Robert Todd Carroll
- [Federal judge bars sale of \[Quadro Tracker\], labels it a fraud](#)
- [Costly hoax is no joke](#)
- [Physicist testifies that tracker lucky to find anything](#)
- [Criminal Capers #4: Don't Sell Fake Equipment to the Police!](#)

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reader comments:

dowsing

14 Jul 2000

Your book is very interesting. I have been a skeptic most of my life. As I get older, I seem to find more cases where valid problem and solutions are being presented with totally false explanations. It is quite easy to toss out the solution because the explanation is wrong. A case in point which you have covered: dowsing.

A couple years back I needed to locate some pipes and wires on my country home. A friend offered to dowse for them, I declined. My brother offered an electronic cable finder which works by inducing a radio current in the cable or pipe and uses a sensitive detector to locate the path and depth of the cable. It works wonderfully. While using it, my brother told me that while it works well at following a cable, its not very good at initially locating from distances more than 10 feet or if the detector is not at right angles to the cable. He said they often use a simple dowsing rod to find the approximate cable location. I thought, oh sure.

After we found the pipes and wires, he pointed out that you could see where they ran. A simple explanation: the dirt used to fill in the trench did not match the surrounding topsoil and so the vegetation had a slightly different color. But not enough to clue in a dowser I would guess. A few days later, I was driving my tractor over one of the marked locations, when I noticed a pronounce bump. The lights came on in my head: my 3 ton tractor was a dowser and I was a dowsing rod.

It is impossible to fill a trench level with the surrounding land. The dirt does not compress enough, so you end up with a mound and if you fill it level, it will settle and you get a depression. So any buried object will leave a mark, albeit very slight. If you are walking balancing a dowsing rod, it will respond faster than you can correct your stance (unconsciously usually) as you step up or down on the trench. The rod does not move, you do. A simple matter of gravity and inertia. So now I would say dowsing is a valid way to find buried objects, though certainly not by any of the explanations usually offered. Quite obviously, a cup of coffee would work just as well and I would not doubt somebody would explain the coffee is attracted to water or something just as goofy. I also suspect that underground streams and other forms of water may cause depressions or be caused by depressions. This may explain the long time use of dowsing to find water.

My real point is that I had dismissed dowsing because of the way it was explained. If I had tried it and it had worked, I might have deduced my theory earlier or at least admitted I did not know how it worked. Perhaps skeptics need to look more closely at widely held notions even when the explanations are impossible.

Al Ruf

reply: The skeptics I've read maintain that some successful dowsing is the result of using visual cues, including, but not limited to, depressions.

16 Nov 1998

I used to sell water conditioning equipment to farmers. After being in an area for a while I usually had a pretty good idea of how deep and what kind of water was available. I encountered a newly built house [whose occupants were] very impressed that the dowser was able to tell them that they would find 50 gallons per minute of water a 80 feet. I further impressed them by holding my test kit over the place the well was to be drilled and announcing that their water would have 8 grains of hardness and 5ppm of iron. After the well was drilled I came back to a sure sale. I was able to sell them the same equipment I sold to all their neighbours who tapped into the same aquifer. Scientific dowsing!

(After all, there were TEST TUBES in my test kit)!

Tim Boettcher

I must begin by giving my applause for an informative and insightful web site. I too consider myself a skeptic on such matters; however, I have witnessed certain phenomena for which I can provide no rational explanation.

reply: The absence of a rational explanation doesn't mean there isn't one. On the other hand, there may be some things which we cannot explain rationally. It doesn't follow from either of these premises that there is always a paranormal explanation, if only we were clever enough to grasp it.

During the summer of 1993, I visited Stonehenge where I observed a man and woman using divining rods to determine the whereabouts and intensity of "lei (?) lines" around the monolith. I approached the couple and enquired about their activities and, after some discussion, I was invited to "try out" the divining rods.

reply: You probably don't recall all the details of the discussion, but my guess would be that what was said to you by the couple influenced you

when you tried to do what they were doing. You may not have been conscious of their influence...you may even have consciously tried to resist being influenced. The mind is a funny thing. When I play golf, I sometimes get paired with someone who analyzes everything. I tell myself that I am ignoring what is said, that I will just hit the ball and not think about what I am doing, yet I inevitably find myself responding to my partner's analysis, despite all my efforts to ignore him.

Holding a rod in each hand, I was instructed to walk past the headstone. As I did so, the rods, which were both pointing directly forward, moved distinctly in an outward direction; as I passed the stone, they then moved back to their original position. I can assure you that I made no active effort whatsoever to influence the movement of the rods.

reply: Even experienced dowsers do not consciously make an effort to influence the movement of their sticks, wires, rods, etc. Yet, influence them they do, nonetheless.

While this experience does not make me a "believer," I am quite interested in any insights you might provide.

reply: I doubt if what I've said counts as an insight into anything, but my guess would be that you were influenced by what the couple said, even though you were unaware of this influence.

10 Jul 1996

I thought I would comment on dowsing. I'm a Hoosier by birth and upbringing and worked as a geologist in KY before earning my Ph.D. at Ind. Univ. While in Ky I was exposed to "dowsing." I thought you might be interested in knowing that in KY practitioners are called "water witches" and they use a "divining rod."

--Clay Harris

*Asst. Prof. of Geology
MTSU*

reply: I'm surprised they don't call it a "bedeviling rod."

Fri 8 Nov 1996

First, I have really enjoyed your dictionary, I don't always agree but it is most interesting.

Secondly, I take some issue with your position on dowsing. Having worked for

20 plus years in the construction business, it is not unusual for two pieces of copper wire (solid - #10) to be used as divining rods in order to find a pipe. Both plumbers and electricians have used this method with a high degree of success. I have personally used the method both on job sites and at homes to locate a buried pipe when the approximate location is known within 10' to 15'.

The use of the copper wires narrows the search to within a foot on either side of the location where the wires cross. The best explanation I have heard is that both water and/or conducting metals in the pipe create a small localized flux in the magnetic field thus enabling dowsing to be possible. I don't claim to have the final answer but it works for me.

John

reply: Your experience has been duplicated thousands of times, so why do I remain skeptical? What is "a high degree of success"? You and other dowsers found water or wires most of the time you used this method. If you do not compare how often you find water or wires *without* using this method, you do not have strong evidence that it was the dowsing that was responsible for your success. It may have been something else, such as the knowledge that comes from experience. I am sure it has occurred to you that electricians and plumbers have had numerous non-dowsing experiences in their trades and that what they learned from those experiences have helped them locate wires and pipes numerous times.

I don't doubt that the best explanation you have heard is that conducting metals in pipes causes a small localized flux in the magnetic field. But I doubt if this theory has been tested. If you decide to test it, I suggest you let non-plumbers and non-electricians do the dowsing. That will silence the skeptical critics who will claim that it was knowledge, not magic, that accounts for the success, if there is any.

14 Jan 1997

I am by my own admission, at least an agnostic and probably an atheist. I am very skeptical of the "supernatural". However, there are undoubtedly many things in this universe that are unknown to us.

reply: Well, we at least agree on that!

If I may continue. When I was a child some 40+ years ago, my grandfather bent 2 pieces of wire into "L" shapes and witched for water. When I was 16 (30 years ago) I worked for the Soil Conservation Service for the summer. Much of there work had to do with tiling on farms in the county. We had to go out and use long metal probes to locate tile. I was not as "smart" as I am now, so I bent two pieces of wire into "L" shapes, held one in each hand and walked in a

straight line until the wires crossed. Then I would probe at that point and locate the drainage tile. So rather than poking many holes in the ground probing for the tile, I would locate the tile within a foot. That summer, I worked with different teams of surveyors on many farms in the county. I would always witch for the tile and always locate it.

Great! Did you ever try any other techniques, e.g., did you ever look to see where the drainage tile drained? Did you do any visual observation of the lay of the land? Did you ever try just poking holes using "intuition" or coin toss?

Now, I realize that this should have been impossible and maybe it was. But, I was there and did that.

Why should it have been impossible? People stick holes in the ground and find what they are looking for all the time. I've even seen it done myself. If one has a little knowledge and experience, one tends to be "luckier" than those who lack both.

I've thought of trying it again, maybe when the snow departs the Midwest I go out in the country and again try it. Although, now I know it can't work.

Forever Skeptical,

Jim

reply: A better reason for not trying it might be that farmers might frown on your digging up their tile to prove the impossible! You'd be looked upon just like those pranksters who make designs in wheat fields.

2 Feb 1997

As a natural born skeptic myself I usually set out with the purpose of debunking claims that don't seem plausible. However, when it comes to witching or dowsing my grandfather had a widely known reputation as a successful witcher and my father also the ability to a high degree. Growing up I was always skeptical of his claims that the green branch he preferred to use was actually moving of its own accord, mainly because I had tried it on numerous occasions with no success. The branch never made any movement for me whatsoever. Then one day my father was using two brass rods bent at 90 deg. for a hand hold and the hand hold was inserted inside two short pieces of copper tubing thus allowing the brass rods to pivot freely inside while one held the pieces of tubing. Well, I decided to try this method and sure enough when I used them they would swing back and forth across each other in the exact same places where my Father had the rods move. Power of suggestion probably?

That was my first thought however upon further experimentation we noticed that over some places the rods would cross back and forth 15 times, sometimes

in another spot maybe 25 times before becoming still etc. Well, this made me wonder if it had anything to do with the depth or size of the body of water we were supposedly detecting. So we did further experimentation to try to see if there was a connection in this phenomena. We had a 3rd. party blindfold us and take us to various bridges over creeks , rivers etc. He did not tell us where we were at any time. Upon arrival at each location he would give one of us the rods and point us toward the stream , we would walk and stop as soon as he saw the rods make a complete swing. Then the process would be repeated with the other of us. He also silently counted the number of swings of the rods each time. Anyway, to shorten the story after the experiments we measured the height from the place we were standing each time to the water's surface. In each case there was a direct correlation between the number of swings of the rods and the number of feet to the water, it always worked to approximately 13 something inches for each swing of the rods.

Several years later I decided to have a well drilled on my property. I and my father both witched till we found the strongest and broadest area. Using my calculations I determined we should hit water at 42 ft. The driller hit water on the 1st attempt at approximately 40ft. and, no, I did not know of any other wells in the area at that depth. Most in the area were at approx. 72ft. I can't explain these effects but do know from my experiences that there is some kind of physical phenomena occurring

Thank You Sincerely **Doug Conaway**

reply: Most readers will probably recognize the flaws in your "controlled" experiment. You may have been blindfolded but your other senses were working as you "dowsed" for bodies of water. As for your personal well, well there is not much to say. If your story is true, all we know for sure is that you hit water and you were only off by two feet in your calculations. Was this luck, coincidence, application of knowledge and experience, or magic? We'll never know.

22 Apr 1997

We agree that the rod turns because of the person holding it. Why? I think it is quite simple. Make yourself a rod, preferably from a young tree with the sap flowing. I guess you know that one has to hold the rod in a special way. Do so. Now put some pressure inwards-upwards. Not too much: essentially it is enough to tighten the grip on the rod. It will turn downwards. The force is such that the bark will come off in your hands.

I once played a joke on a "rod-skeptic". I "found" water by the method above. He then passed the same patch without the rod moving. I got into a spiel about how I could transfer my powers to him. We walked the path again and when we came to the place I put my hand on his arm and whispered: "don't you feel it". Sure enough, the rod moved. Because he unconsciously tensed up and increased pressure.

Regards, **Pelle Nilsson**

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lucid dreaming

...in order to dream, You gotta still be asleep.

--Bob Dylan, "When You Gonna Wake Up?" (1979)

The seventh type of dreams, which I call lucid dreams, seems to me the most interesting and worthy of the most careful observation and study. Of this type I experienced and wrote down 352 cases in the period between January 20, 1898, and December 26, 1912.

In these lucid dreams the reintegration of the psychic functions is so complete that the sleeper remembers day-life and his own condition, reaches a state of perfect awareness, and is able to direct his attention, and to attempt different acts of free volition. Yet the sleep, as I am able confidently to state, is undisturbed, deep and refreshing. I obtained my first glimpse of this lucidity during sleep in June, 1897, in the following way. I dreamt that I was floating through a landscape with bare trees, knowing that it was April, and I remarked that the perspective of the branches and twigs changed quite naturally. Then I made the reflection, during sleep, that my fancy would never be able to invent or to make an image as intricate as the perspective movement of little twigs seen in floating by. ---Frederik van Eeden, *A Study of Dreams* (1913)

Lucid dreaming is dreaming while being aware that you are dreaming. Lucid dreaming advocates strive to control and guide their dreams. Some desire to avoid recurring nightmares. Others desire fun. Some New Age lucid dreamers, however, believe that lucid dreaming is essential for self-improvement and personal growth.

Stephen LaBerge, Ph.D., claims that lucid dreaming is

a priceless treasure that belongs to each of us. This treasure, the ability to dream lucidly, gives us the opportunity to experience anything imaginable -- to overcome limitations, fears, and nightmares, to explore our minds, to enjoy incredible adventure, and to discover transcendent consciousness.

Ordinary dreams give a hint of these possibilities, through their regular violation of the rules of waking life, and their occasional offering of insights into our lives. The art of dreaming is a learnable skill, and I believe the highest level of that skill is found in lucid dreaming. Lucid dreams are dreams in which you know that you are dreaming, and are

aware that the dream is your own creation.

With lucidity comes an astonishing, exhilarating feeling of freedom -- the knowledge that you can do anything, unbound by any laws of physics or society. One of the first joys of many lucid dreamers is flying: soaring like a bird, freed from the restraints of gravity. From there, people can go on to discover the vast power of lucid dreaming for transforming their lives.

If you need help with your lucid dreaming, you can purchase books, tapes, scientific publications and induction devices, such as the DreamLight (\$1,200), the DreamSpeaker (\$150) or the NovaDreamer (\$275), from [LaBerge's Lucidity Institute](#). For \$2,000 you can attend a [seminar](#) at a beautiful tropical resort where you can learn all the latest techniques to help you tap into your "[unconscious mind](#)," an absolute necessity for living the good life. For an additional \$35 you can even get 2.0 units of nursing continuing education credit through the [Institute of Transpersonal Psychology](#).

Why Dr. LaBerge doesn't just advocate daydreaming to do all this wonderful transcendent stuff is explained by Frederick van Eeden. When we're awake, we are logical and feel restricted by conventional social rules and oppressive laws of nature. Our imaginations would be too repressed by our waking consciousness to allow us to let go and fly with spirits or view intricate twigs. So, we must sleep to free the imagination.

Although, LaBerge seems to advocate learning to control the *content* of our dreams so we can enjoy such experiences as *flying*, he claims that is not the case.

Lucidity and control in dreams are not the same thing. It is possible to be lucid and have little control over dream content, and conversely, to have a great deal of control without being explicitly aware that you are dreaming. Nonetheless, becoming lucid in a dream is likely to increase your deliberate influence over the course of events. Once you know you are dreaming, you are likely to choose some activity that is only possible in dreams. You always have the choice of how much control you want to exert, and what kind. For example, you could continue with whatever you were doing when you became lucid, with the added knowledge that you are dreaming. Or you could try to change everything--the dream scene, yourself, other dream characters, etc. It is not always possible to perform "magic" in dreams, like changing one object into another or transforming scenes. A dreamer's ability to succeed at this

seems to depend a lot on the dreamer's confidence. If you believe that you cannot do something in a dream, you will probably not be able to. [\[FAQ\]](#)

LaBerge seems to believe that our goal be to live in a dreamworld. Yet, the evidence is lacking that the more lucid dreams a person has the better off he or she is. The proof is not in on how having more flying or surfing dreams will transform one's life for the better. Such dreams may be fun but perhaps could they be had without spending thousands of dollars on Dr. LaBerge's dream aids.

For some lucid dreamers the main goal of lucid dreaming is to have lucid dreams that are indistinguishable from [OBEs](#). Flying free from the restraints of gravity in one's dreams takes some people out of their bodies to hover and watch themselves dreaming lucidly.

Some skeptics do not believe that there is such a state as lucid dreaming [e.g., Norman Malcolm, *Dreaming* (London: Routledge, 1959)]. Skeptics don't deny that sometimes in our dreams we dream that we are aware that we are dreaming. What they deny is that there is special dream state called the 'lucid state.' The lucid dream is therefore not a gateway to "transcendent consciousness" any more than nightmares are. But [LaBerge](#) claims that he has proved the skeptics wrong:

We provided the necessary verification by instructing subjects to signal the onset of lucid dreams with specific dream actions that would be observable on a polygraph (i.e., eye movements and fist clenches). Using this approach, LaBerge, Nagel, Dement & Zarcone (1981)[*"Psychophysiological correlates of the initiation of lucid dreaming," Sleep Research, 10, 149.*] reported that the occurrence of lucid dreaming during unequivocal REM sleep had been demonstrated for five subjects.

Well, that's a start. However, one should consider that self-awareness resides in the prefrontal cortex, which shows [reduced activity during sleep](#) for most people most of the time. This reduced activity may well be why we can dream of the most bizarre things without being aware of how bizarre they are until we wake up and remember them. Perhaps lucid dreaming is possible for some people because their frontal lobes don't rest during sleep.

See related entries on [dreams](#) and [out-of-body experiences](#).

further reading

reader comments

- [Lucid Dreaming: Awake in Your Sleep?](#) Susan Blackmore in *Skeptical Inquirer* 1991, 15, 362-370.
- [Out-of-Body Experiences vs. Lucid Dreams](#) by Bob Peterson
- [The Lucidity Institute](#)
- [Diary from Lucid Dream Camp](#) By Keelin
- [Through the Mirror - Beyond Dreaming](#)
- [OTHER WORLDS: OUT-OF-BODY EXPERIENCES AND LUCID DREAMS](#) by Lynne Levitan and Stephen LaBerge, Ph.D.

[Gackenbach, Jayne, and Stephen LaBerge \(Editor\) *Conscious Mind, Sleeping Brain : Perspectives on Lucid Dreaming* \(Plenum, 1988\).](#)

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reader comments:

dreams

5 Nov 1998

Mr. Carroll, I have a small correction. You wrote "With 5.9 billion people having an average of 250 dreams each per night," I believe that, on average, people have 5 to 7 dreams per night.

Bob Novella

The New England Skeptical Society

reply: There are typically several distinct periods during sleep when dreaming occurs. Most dreaming takes place during the four or five REM periods. If we relied on reports of dreamers to determine how many dreams per night a person has on average, the number would probably be smaller than 5. That is, I doubt if most people remember 5 to 7 dreams per night. A further difficulty in counting dreams is the fact that dreams are often so incoherent that a number of disconnected "themes" might be counted as one dream by one person, while another might count the same dream as ten or twenty distinct dreams. Since it is the "theme" rather than the exact dream that will be counted as a clairvoyant hit by those who believe in such things, I agree with Terence Hines that dreams ought to be counted by "themes" not by REM periods. I grant that the number of themes he arrives at is partly guesswork. In any case, he seems to have based his number on *The Mind in Sleep: Psychology and Psychophysiology* (Hillsdale, N.J.: Lawrence Erlbaum Associates, 1978) edited by A. Arkin, J. Antrobus and S. Ellman.

Hines writes: "In a single REM period, there are upwards of fifty dream 'themes'--snippets of more or less (often less) coherent 'story.' Thus, a normal individual will have at least two hundred fifty (five REM periods times fifty dream themes per period) dream themes per night." One might quibble about the exact number of dream themes on average a person has each night, but it is certainly much greater than the average number of REM periods.

17 Aug 1998

I enjoyed your recent article on dreams, and I wanted to share a story with you.

My father, the late Dr. Silas White, taught Physiological Psychology at Muhlenberg College for over twenty years. He discussed dreams and their lack of relation to the future in his class. He was frequently asked questions along the lines of, "But how can you explain that I dreamed that my brother broke his leg, and I found out the next day that he broke his leg at summer camp?" His stock response was, "How can you explain that I've dreamed dozens of times that I was walking around downtown Allentown, and I panicked when I realized I wasn't wearing any clothing, but it has never happened to me?"

Also, doesn't every graduate student dream at some point that somebody offhandedly asks them, "So, are you ready for that final in Electro Theology?" Of course, you then realize that you signed up for the class but forgot to ever go to it. I never had it until my father told me about it. Then I had it all the time.

Aaron White



[dreams](#)

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druids

The druids were the "wise men" of the Celts. Although dozens of books have been written about them, almost nothing is known about the druids. Their beliefs were esoteric and passed on orally. Their practices, for the most part, were not public. With no written tradition and no major temples where art might provide a key to some of the druids' activities, we must rely upon the words and speculations of foreign observers.



The druids are mentioned by the ancient Roman authors Strabo, Diodorus, Posidonius and Julius Caesar, who portray them as overseeing bloody religious rituals. Hence, the druids are often thought of as having primarily a religious function and are often called 'priests.' Diodorus calls them 'philosophers.' Strabo calls them bards and soothsayers with a reputation for mediation. Whatever they were, the druids enjoyed a position of high status in Celtic society very unlike the position of modern "druids" who find solace communing with grass or the wind while parading around stone circles.

Modern "druids" treat [Stonehenge](#) and other megalithic monuments of the British Isles as places of worship. All of the stone circles, menhirs, dolmens, etc., of the British Isles were constructed by peoples who antedated the Celts by one to three thousand years. Stonehenge, for example, was built over a period of centuries, from 2800 BC to 1550 BC. The Celts did not arrive in the British Isles until long after the great megaliths had been erected.

It seems likely that the Celtic druids were a class apart from the warriors in Celtic society. "They served the tribes and clans as judges, prophets, soothsayers, wise men and as keepers of the collective memory" (Herm, 61). They were the intellectuals in a warrior society and have been compared to the Brahmins of the Indian caste system.

The word 'druid' is thought to derive from the Greek *drus* (oak) and the Indo-European *wid* (wisdom), "which produces the apparent absurdity of 'oak-knower' (Herm, 57). In any case, druids are typically associated with oak trees. Some say they held assemblies in sacred groves, that they prized the mistletoe growing on the oaks, or that they worshipped the trees themselves. However, the modern druids' nature worship is a fanciful connection to the ancient Celts. Finally, there is no direct historical connection between the Celtic druids and modern [Wicca](#).

further reading

- [The Real History of Druids](#)
- [Druids](#)
- [Dalriada Celtic Heritage Society: Who Were the Celts?](#)
- [The Celtic Druids](#)

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[Ellis, Peter Berresford. *The Druids* \(Wm. B. Eerdmans Publishing Co.;1998\).](#)

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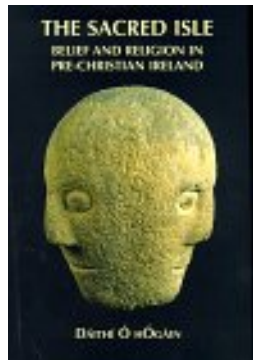
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[The Sacred Isle-
Belief and Religion
in Pre-Christian
Ireland by Dáithí Ó
Hógáin](#)



[Celtic Christianity
ed. by Oliver
Davies and Thomas
O'Loughlin](#)

Wicca

Wicca is a nature religion based upon beliefs and rites believed to be rooted in ancient practices. Wicca claims a direct connection to the ancient Celtic tradition, which is thought to be more in tune with natural forces than Christianity and other modern religions of the West. However, rather than see Wiccans as members of a religion, it might be more accurate to see them as sharing a spiritual basis in nature and natural phenomena. For Wiccans have no written creed which the orthodox must adhere to. Nor do they build stone temples or churches to worship in. They practice their rituals in the great outdoors: in parks, gardens, forests, yards or hillsides. According to a Wicca FAQ page

"Wicca" is the name of a contemporary Neo-Pagan religion, largely promulgated and popularized by the efforts of a retired British civil servant named Gerald Gardner [late 1940's]. In the last few decades, Wicca has spread in part due to its popularity among feminists and others seeking a more woman-positive, earth-based religion. Like most Neo-Pagan spiritualities, Wicca worships the sacred as immanent in nature, drawing much of its inspiration from the non-Christian and pre-Christian religions of Europe. "Neo-Pagan" simply means "new pagan" (derived from the Latin paganus, "country-dweller") and hearkens back to times before the spread of today's major monotheistic (one god) religions. A good general rule is that most Wiccans are Neo-Pagans but not all Pagans are Wiccans. [[Wicca FAQ](#)]

A good general rule seems to be that there is no single set of beliefs or practices which constitutes Wicca, though one belief seems to recur: *An' it harm none, do what you will*. Also, some rituals seem to recur.

Wiccans practice a number of rituals associated with such natural phenomena as the four seasons, the solstices and the equinoxes. Their symbols are based on the connectedness of Nature to human life. For example, they celebrate summer in a fertility rite known as Beltane. Rather than pray to some unnatural god beyond all experience, Wiccans seem more concerned with self-awakening, with arousing their connectedness to nature and nature gods, female as well as male. Their rituals seem to be metaphors for psychological processes. They sing, they dance, they chant. They burn candles and incense. They use herbs and [charms](#). Often, Wiccans favor herbs to traditional medicines. In group rituals they express their desires to the community. They don't cast [spells](#). They ask for blessings from north, south, east and west.

They meditate. They don't cook weird poisonous stews in cauldrons. They don't fly off on brooms. They don't pray for harm to their enemies. Because Wiccans seem to worship nature and nature goddesses and gods, they can be called [pantheists](#).

Wiccans do share one thing in common with Christians, however. Both believe that the indifferent destructiveness of Nature is essentially something good. We should be thankful for the blessings of Nature (or God), including the pumiced humans at Pompeii, the children swept away in flash floods, those sucked out of their homes by the tornado and thrown into the Guinness sky of the volcano, the millions who bake under an uncaring sun in parched lands, the innocent monsters deformed by uncaring biological laws, those devoured by great cracks in the earth, those drowned in hurricanes, the millions left homeless each year by indifferent forces ravaging an indifferent landscape. Only in their mythologies have Wiccan [magick](#) or Christian prayer stopped the flood, doused the lightning bolt, stilled the whirlwinds of tornado and hurricane, calmed the quaking earth, or put to sleep the tsunami.

The attractiveness of Wicca may be due to its friendliness towards women, its naturalistic view of sex and its promise of power through magick. It is very popular among women, and it is tempting to say that Wicca is women's revenge for the centuries of misogyny and "femicide" or "gynicide" practiced by established religions such as Christianity. Wicca, like the Celtic religion, allows women full participation in the practice. Women are equals, if not superiors, of men. Women in Celtic mythology are unusual, to say the least. They are intelligent, powerful warriors, ruthless, sexually aggressive, and leaders of nations.

Finally, it should be noted that Wicca is not related to [Satan](#) worship. That practice is related to the persecution of "[witches](#)" by Christians, especially during the medieval and Spanish Inquisitions, though not necessarily by the Inquisitors themselves. (See the [Malleus Maleficarum](#), 1486, which describes "the three necessary concomitants of witchcraft," namely, "the Devil, a witch, and the permission of Almighty God.") The spirit of the witch hunters, however, lives on in the hearts of many devout Christians who continue to persecute Wiccans, among others, as devil worshippers. The modern witch hunters do not demand purgations. Rather, they try to abolish Halloween, school mascots, books which mention witches, and any sign, symbol or number the Christians associate with Satan. (One local pizza house was even hounded for some markings it had on its delivery boxes. Local witch hunters claimed the markings were satanic signs. The pizza house changed its boxes rather than deal with adverse publicity.)

On the first day of spring in 1996, our local newspaper ran an article about a local coven of witches. The story portrayed the all-female group as harmless nature worshippers who dance in circles and ask for blessings from the north, south, east, west, etc. The article prompted a long letter to the editor decrying

the naiveté and ignorance of the author of the story on the local coven. Witches are in cahoots with Satan, said the letter writer, who signed off as "a survivor of [satanic ritual abuse](#)." The sincerity of the letter writer seemed as genuine as the sincerity of the women of Salem who confessed to being witches. Are the modern day victims of satanic ritual abuse as deluded as the witches hunted down by pious Christians through the centuries who truly believed that they were as evil as their persecutors said they were? Are the Wiccans of today part of a satanic conspiracy? I doubt it. If there are Christians who are being systematically abused by Satan worshippers, their abusers are not part of an international conspiracy known as Wicca.

See related entries on [magick](#), [pagans](#), [Satan](#), and [witches](#).

further reading

[reader comments](#)

- ["The Scholars and the Goddess" by Charlotte Allen, *Atlantic Monthly* \(Jan 2001\).](#)
- [Ontario Consultants on Religious Tolerance: witchcraft and wicca page](#)
- [What's the deal with witches and broomsticks?](#) - Cecil Adams, The Straight Dope
- [Samhain](#)
- [Wicca FAQ](#)
- [The Celtic Connection](#)
- [Norm Vogel's Witchcraft page](#)
- [Covenant of the Goddess Homepage](#)

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Last updated 12/10/02



[werewolves](#)

[wishful thinking](#)



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true-believer syndrome

The need to believe in phony wonders sometimes exceeds not only logic but, seemingly, even sanity.

--The Rev. Canon William V. Rauscher

The true-believer syndrome merits study by science. What is it that compels a person, past all reason, to believe the unbelievable. How can an otherwise sane individual become so enamored of a fantasy, an imposture, that even after it's exposed in the bright light of day he still clings to it--indeed, clings to it all the harder?

--M. Lamar Keene

True-believer syndrome is an expression coined by M. Lamar Keene to describe an apparent cognitive disorder characterized by believing in the reality of paranormal or supernatural events after one has been presented overwhelming evidence that the event was fraudulently staged. Keene is a reformed phony psychic who exposed religious racketeering--to little effect, apparently. Phony faith healers, psychics, channelers, televangelist miracle workers, etc., are as abundant as ever.

Keene believes that "the true-believer syndrome is the greatest thing phony mediums have going for them" because "no amount of logic can shatter a faith consciously based on a lie." That those suffering from true-believer syndrome are consciously lying to themselves hardly seems likely, however. Perhaps from the viewpoint of a fraud and hoaxer, the mark who is told the truth but who continues to have faith in you must seem to believe what he knows is a lie. Yet, this type of [self-deception](#) need not involve *lying* to oneself. To lie to oneself would require admission that one believes what one knows is false. This does not seem logically possible. One can't [believe](#) or disbelieve what one *knows*. (*Belief* is distinct from *belief in*, which is a matter of *trust* rather than belief.) *Belief* and *disbelief* entail the possibility of error; *knowledge* implies that error is beyond reasonable probability. I may have overwhelming evidence that a "psychic" is a phony, yet still believe that paranormal events occur. I may be *deceiving* myself in such a case, but I don't think it is correct to say I am *lying* to myself. It is possible that those suffering from true-believer syndrome simply do not believe that the weight of the evidence before them revealing fraud is sufficient to overpower the weight of all those many cases of supportive evidence from the past. The fact that the supportive evidence was largely supplied by the same person exposed as a fraud is suppressed. There is always the hope that no matter how many frauds are exposed, at least one of the experiences might have been genuine. No one can prove that all psychic "miracles" have been frauds; therefore, the true believer may well reason that he or she is justified in keeping hope alive. Such thinking is not completely illogical, though it may seem pathological to

the one admitting the fraud.

It does not seem as easy to explain why the true-believer continues to *believe in*, that is, *trust* the psychic once he has admitted his deception. Trusting someone who reveals he is a liar and a fraud is irrational and such a person must appear crazy to the hoaxer. Some of them may well be mad, but some may be deceiving themselves by assuming that it is possible that a person can have psychic powers without knowing it. Thus, one could disbelieve in one's psychic ability, yet still actually possess paranormal powers. Just as there are people who *think* they have psychic powers but don't really have any such powers, there are people who have psychic powers but think they don't.

In any case, there are two types of true believers, though they are clearly related. One is the kind Keene was referring to, namely, the type of person who believes in paranormal or supernatural things contrary to the evidence. Their faith is unshakeable even in the face of overwhelming evidence against them, e.g., those who refused to disbelieve in "[Carlos](#)" once the hoax was revealed. Keene's examples are mostly of people who are so desperate to communicate with the dead, that no exposé of fraudulent [mediums](#) (or [channelers](#)) can shake their faith in [spiritualism](#) (or [channeling](#)). The other is the type described by Eric Hoffer in his book *The True Believer*. This type of person is irrationally committed to a cause like [murdering doctors who perform abortions](#) or to a guru like [Jim Jones](#).

True-believer syndrome may account for the popularity of [Uri Geller](#), [Sai Baba](#) or [James Van Praagh](#), but the term does not help us understand why people believe in the psychic or supernatural abilities of such characters, despite the overwhelming evidence that they are frauds and make their living by bilking people of great sums of cash. Since by definition those suffering from true-believer syndrome are irrationally committed to their beliefs, there is no point in arguing with them. Evidence and logical argument mean nothing to them. Such people are by definition deluded in the psychiatric sense of the term: they believe what is false and are incapable of being persuaded by evidence and argument that their notions are in error.

Clearly, if there is any explanation for true-believer syndrome, it must be in terms of the satisfaction of emotional needs. But why some people have such a strong emotional need to believe in immortality, racial or moral superiority, or even that the latest fad in management must be pursued with evangelical zeal, is perhaps unanswerable. It may have to do with insecurity. Eric Hoffer seemed to think so. He said

The less justified a man is in claiming excellence for his own self, the more ready he is to claim all excellence for his nation, his religion, his race or his holy cause....

A man is likely to mind his own business when it is worth

minding. When it is not, he takes his mind off his own meaningless affairs by minding other people's business....

The fanatic is perpetually incomplete and insecure. He cannot generate self-assurance out of his individual resources -- out of his rejected self -- but finds it only by clinging passionately to whatever support he happens to embrace. This passionate attachment is the essence of his blind devotion and religiosity, and he sees in it the source of all virtue and strength.... He easily sees himself as the supporter and defender of the holy cause to which he clings. And he is ready to sacrifice his life.

Hoffer also seemed to think that true-believer syndrome has something to do with the desire to give up all personal responsibility for one's beliefs and actions: [to be free of the burden of freedom](#). Perhaps Hoffer is right for many of the more severe cases, but many of the lesser ones may have to do with little more than [wishful thinking](#).

A study done by psychologists Barry Singer and Victor Benassi at California State University at Long Beach illustrates the will to believe in psychic powers in the face of contrary evidence. They brought in a performing magician, Craig Reynolds, to do some tricks for four introductory psychology classes. Two of the classes were not told that he was a magician who would perform some amateur magic tricks. They were told that he was a graduate student who claimed to have psychic powers. In those classes, the psychology instructor explicitly stated that he didn't believe that the graduate student or anyone else has psychic abilities. In the other two classes the students were told that the magician was a magician. Singer and Benassi reported that about two-thirds of the students in both groups believed Craig was psychic. The researchers were surprised to find no significant difference between the "magic" and "psychic" classes. They then made the same presentation to two more classes who were explicitly told that Craig had no psychic abilities and that he was going to do some tricks for them whereby he pretends to read minds and demonstrate psychic powers. Nevertheless, more than half the students believed Craig was psychic after seeing his act.

Singer and Benassi then asked the students whether they thought magicians could do exactly what Craig did. Most of the students agreed that magicians could. Then they asked the students if they would like to change their estimate of Craig's psychic abilities in light of the negative data they themselves had provided. A few did, reducing the percentage of students believing in Craig's psychic powers to 55 percent. Then the students were asked to estimate how many so-called psychics were really fakes using magician's tricks. The consensus was that most "psychics" are frauds. The students were again asked if they wished to change their estimate of Craig's psychic powers. Again, a few did, but the percentage believing in Craig's psychic powers was still a

hefty 52 percent. [Benassi and Singer; Hofstadter]

For many people, the will to believe at times overrides the ability to think critically about the evidence for and against a belief.

See related entries on [ad hoc hypothesis](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [control study](#), [Occam's razor](#), [the post hoc fallacy](#), [selective thinking](#), [self-deception](#), [subjective validation](#), [testimonials](#), and [wishful thinking](#).

further reading

- [The Battle for Your Mind](#) by Dick Sutphen
- [Willis Carto's Hate Network](#)
- [True Believers and Utter Madness \(1995\)](#)
- [Dale Beyerstein's book on Sai Baba](#)

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 [trepanation](#)

[the unconscious mind](#) 

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electro-magnetic fields



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reader comments:

electro-magnetic fields

11 Jan 2001

I'd like to add a reader's comment to topic Electromagnetic Fields. I recently co-authored a book on electrical accidents, covering legal aspects, and included a chapter on this topic.

It is quite true that the plaintiff's bar did file a number of lawsuits, and many more were waiting at the first sign of success. It looked like the next mass tort. But a funny thing happened. Science won out. There were some early settlements, but no successes after that. The National Research Councils' 1966 report and similar consensus reports were persuasive even on juries. Most cases were dropped, and the very few that went to trial resulted in defense verdicts. Even the notorious cancer cluster case in Guilford, CT, hyped by "investigative reporter" and non-scientist Paul Brodeur, was dropped just before trial in 1993 when the plaintiff's best experts witnesses backed out.

Paul Hill
Omaha, Nebraska

6 Nov 2000

Hey SkepDic, What you had to say about electromagnetic fields really pissed me off. I've watched too many people deal with depression, sweets cravings, insomnia, and cancer due to EMF stress.

reply: I don't doubt you've watched people with these and many other problems, but what makes you so sure that the cause is EMF stress?

It's a problem that the public is left relatively uninformed of unless they study it for themselves, and your uninformed opinion doesn't do it justice. I've learned that much of the research published is false information because it is funded by the people who will not profit from anyone finding out that electromagnetic fields truly are damaging to the human body.

reply: Where did you get this information?

In all states but California, it is code that the power box in residences be grounded out on the water line. In some houses, this creates a measurable

current through the building, I know this because I used to live in a house that ran a charge of 3 milligauss. I cut off the current between the water line and the street after I spent a week carrying a Trifield gauss meter everywhere I went, and observing how my body and mind felt in different fields.

reply: I'm sorry for your troubles, but how can you be sure your problems are caused by EMFs? Have you seen a doctor? Maybe you have some other sort of disorder.

Even if cancer is not necessarily proven to be caused by low frequency EMFs, there is plenty of proof that the body's moods and balances are affected through altering the pineal gland's production of the hormone melatonin, and also the balances of the neurotransmitters dopamine and serotonin. These effects show themselves in different ways in different bodies, but put your head on straight. What we understand about the true nature of the human body equals dick. Please don't further the dismissal of an item that I know is an important step towards the growth of the entire human race. Make an attempt at your own understanding before you listen to someone else's bullshit.

-Adam from MN

reply: I will if you will. But first read the following letter.

Adam from MN writes:

> In all states but California, it is code that the power box in residences be grounded out on the water line.

The reason for grounding the fuse box is to provide a path for electrical current should a fault develop. This current will trip the breaker in the fuse box. If the ground path were not present, a person can be killed by touching the faulty equipment. It is vital for safety.

> In some houses, this creates a measurable current through the building, I know this because I used to live in a house that ran a charge of 3 milligauss.

If grounding the fuse box causes a measurable current to flow in the ground line, there is a fault in the electrical system which must be corrected. To state that the '[current] ran a charge of 3 milligauss' makes no sense because (a) a current is not a charge (b) charge is not measured in Gauss (c) the earth's magnetic field alone is about 500 milligauss at ground level, and therefore 3 milligauss is negligible.

>I cut off the current between the water line and the street after I spent a week carrying a Trifield gauss meter everywhere I went, and observing how my body and mind felt in different fields.

I don't know what this means but I hope it does not mean that he lifted the ground connection from the house wiring, which is illegal and potentially fatal.

Tom Kite
DSP Engineer

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reader comments:

electronic voice phenomenon

20 Aug 2000

Dear Professor Carrol, it is good to be skeptical, and indeed it seems to have become a necessary survival tool in these times.

Regarding EVP however, there is more to be said than what you may have heard from Mrs Estep et al.

I have researched the subject in some depth and with a background in applicable subjects. I am not, however, offering opinions.

The waveforms of EVP speech sounds are the "same" as those in natural speech, though with certain deficiencies. This is EVP produced in my own experiments under defined and controlled circumstances.

This is not a subject to be dismissed with a cursory glance at the written outpourings of the scientifically illiterate. That is all I am saying. And email is really not a suitable vehicle to take the matter further. Besides, you and I may have some lively ceilidhs to attend to instead ... or, in my case, at the moment, to recover from....

Alexander MacRae An t'Eilean a' Cheo Alba



[electronic voice phenomenon](#)



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G. I. Gurdjieff (1872?-1949)

[George S. Georgiades](#) was a Greco-Armenian charismatic con man who was born in Russia but made a name for himself in Paris as the mystic George Ivanovitch Gurdjieff. In Russia he established what he called "The Institute for the Harmonious Development of Man" (1919), which he re-established in France in 1922. It was at his Institute that Gurdjieff promoted a litany of preposterous occult and mystical notions about the universe, which he claimed he was taught by wise men while traveling and studying in Central Asia. He put down his "insights" in books with titles like *Meetings with Remarkable men*, *All and Everything*, and *Beelzebub's Tales to his Grandson: an objectively impartial criticism of the life of man*. Gurdjieff's mostly uninteresting or unintelligible musings were presented in more accessible language by his disciple [Petyr Demianovich Ouspensky](#).

To some devotees of Gurdjieff, Ouspensky was an incomplete mystic. Other disciples find Gurdjieff and Ouspensky to be co-gurus.

Their current disciples presumably ignore Gurdjieff's more ridiculous claims, such as the following comment on the moon:

All evil deeds, all crimes, all self-sacrificing actions, all heroic exploits, as well as all the actions of ordinary life, are controlled by the moon.

What makes a guru such as Gurdjieff attractive as a spiritual conquistador is rather his more cynical beliefs, such as the notion that most human beings who are awake act as if they are asleep. Gurdjieff also observed that most people are dead on the inside. I think he meant by these claims that most people are trusting, gullible, easily led, very suggestible, not very reflective or suspicious of their fellow creatures, and need a guru to give their lives vitality and meaning. That is to say, I believe Gurdjieff correctly noted that most people are neither skeptics nor self-motivated, and that many are easily duped by gurus because they want someone to show them the way to live a meaningful life. He offered to show his followers the way to true wakefulness, a state of awareness and vitality which transcends ordinary consciousness. He was able to attract a coterie of writers, artists, wealthy widows and other questing souls to work his farm for him in exchange for sharing his wisdom. He offered numerous claims and explanations for everything under the moon, rooted in little more than his own imagination and never tempered with concern for what science might have to say about his musings.

Gurdjieff obviously had a powerful personality, but his disdain for the

mundane and for natural science must have added to his attractiveness. He allegedly exuded extreme self-confidence and exhibited no self-doubt, traits which must have been comforting to many people. His teachings, however, often seem like the delusions of a Gnostic madman, such as Dr. Daniel Paul Schreber, whose *Memoirs of a Neuropath* were analyzed by Freud. (Available in [Three Case Histories](#))

My favorite Gurdjieff story is told by Fritz Peters. To explain "the secret of life" to a wealthy English woman who had offered him £1,000 for such wisdom, Gurdjieff brought a prostitute to their table and told her he was from another planet. The food he was eating, he told her, was sent to him from his home planet at no small expense. He gave the prostitute some of the food and asked her what it tasted like. She told him it tasted like cherries. "That's the secret of life," Gurdjieff told the English lady. She called him a charlatan and left. Later that day, however, she gave him the money and became a devoted follower.

To those on a quest for spiritual evolution or transformation, guides like Gurdjieff and Ouspesky promise entry into an esoteric world of ancient mystical wisdom. Such a world must seem attractive to those who are out to sea and rudderless. There are [Gurdjieff Ouspensky Centers](#) in over 30 countries around the world; they are operated by the [Fellowship of Friends](#).

See the related entries on the [enneagram](#) and [Ouspensky](#).

further reading

[reader comments](#)

- [G. I. Gurdjieff and His School](#) by Jacob Needleman
- [Gurdjieff Home Page](#)
- [Georges Ivanovitch Gurdjieff Home Page](#)
- [The Gurdjieff Teaching](#)
- [The Thought of Petyr Demianovich Ouspensky](#) by Michael Presley
- [Piotr Demianovich Ouspensky](#)
- [The Fourth Way](#)
- [Gurdjieff and the Enigmatic Enneagram](#)

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 [graphology](#)

[haunted houses](#) 

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Petryr Demianovich Ouspensky (1878-1947)

Ouspensky was a mathematician and mystic who played the St. Paul to [Gurdjieff's](#) Christ, taking the occult and often unintelligible notions of the master and making them palatable, if no more comprehensible in works such as *In Search of the Miraculous--Fragments of an Unknown Teaching* and *The Fourth Way---A Record of Talks and Answers to Questions based on the teaching of G. I. Gurdjieff*.

Unlike St. Paul, however, Ouspensky eventually lost faith in his master. Perhaps as his answer to Gurdjieff's Institute for the Harmonious Development of Man, Ouspensky founded the Society for the Study of Normal Man and developed his own following. Ouspensky is likely to remain a favorite among New Agers since he wrote books with titles like *The symbolism of the tarot : philosophy of occultism in pictures and numbers* and *Tertium Organum: the third canon of thought: a key to the enigmas of the world*, an attempt to reconcile the mysticism of the east with the rationalism of the west .

See related entry on [Gurdjieff](#).

further reading

- [A Brief Overview of Certain Aspects of the Thought of Petryr Demianovich Ouspensky](#) by Michael Presley
- [Piotr Demianovich Ouspensky](#)



Search the Skeptic's Dictionary

Oscar Ichazo

From an Interview with Sam Keen, *Psychology Today*, July, 1973

...Ichazo: When I was 19, a remarkable man found me in La Paz. He was 60 years old and when he began to teach me, I knew from the beginning that he was speaking the truth. This man, whose name I have pledged not to reveal, belonged to a small group in Buenos Aires that met to share their knowledge of various esoteric consciousness-altering techniques. I became the coffee boy for this group. I would get up at four a.m. to make their coffee and breakfast and would stay around as inconspicuously as possible. Gradually they got used to my presence and they started using me as a guinea pig to demonstrate techniques to each other. To settle arguments about whether some particular kind of meditation or mantra worked, they would have me try it and report what I experienced.

Keen: What kinds of disciplines were being shared in the group?

Ichazo: About two thirds of the group were Orientals so they were strong on Zen, Sufism and cabala. They also used some techniques I later found in the Gurdjieff work.

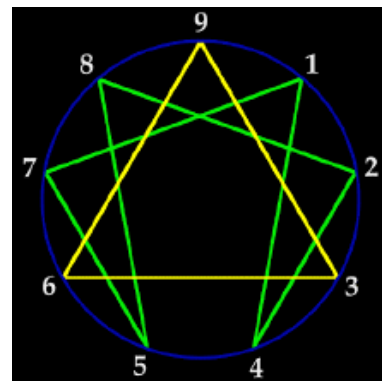
Keen: Where does the story go from there?

Ichazo: One day when I was serving coffee, an argument arose between two members of the group. I turned to one and said, "You are not right. He is right." Just like that. Then I explained the point until both of them understood. This incident changed everything. They asked me to leave and I thought I was being kicked out for being pretentious. But after about a week, they called me back and told me they had all decided to teach me. They worked with me for two more years and then opened doors for me in the Orient. After a time of remaining at home in Chile, I began to travel and study in the East; in Hong Kong, India and Tibet. I did more work in the martial arts, learned all of the higher yogas, studied Buddhism and Confucianism, alchemy and the wisdom of the I Ching. Then I went back to La Paz to live with my father and digest my learnings. After working alone for a year, I went into a divine coma for seven days. When I came out of it I knew that I should teach; it was impossible that all my good luck should be only for myself. But it took me two years to act on this decision. Then I went to Santiago and started lecturing in the Institute for Applied Psychology. Things got so busy and crowded there that I decided to move to the remote little town of Arica and filter out all except the really committed persons who would follow me there. At first I worked with a group of 10. Then in 1970, a group of Americans -- about 50 -- came and stayed for nine months. Fifteen of these were from Esalen. It was clear to me that the time had come to move to North America. So here we are -- The Arica Institute with centers in New York, Los Angeles and San Francisco....



Golf and the Enneagram

It has recently been discovered that the [enneagram](#) is the layout of an ancient nine-hole golf course. In fact, I have met each of the nine types on the golf course. For example, type One is the Perfectionist. Anyone who plays golf knows what a pain playing with the Perfectionist can be. First of all, the One is never satisfied. Not only does he take a mulligan on perfectly good drives, he complains about something on almost every shot. "Fuck! I pulled it." "Shit! I pushed it." "Goddammit! Wrong club." "Christ! Too much fade." "Jesus fucking Christ! Not enough draw." The One is often very foulmouthed in an uncontrollable sort of way and always talks as if his body just didn't follow his mind's orders. This is the guy who slams his club into the ground as the ball is in flight right at the pin. He is also the one who keeps giving you unsolicited advice, such as "you should've aimed more to the left" or "you need to adjust your grip." The Perfectionist also takes forever to hit his ball. He throws up grass on the fairway about six times to check the wind. He adjusts his grip about five times before hitting. He keeps looking down the fairway to make sure his alignment is right. And when putting he walks all over the green, holds his putter up like a plumb bob, and generally takes forever before actually putting the ball. The One is no fun.



The Two is the Giver. This is the guy who says "nice shot" as soon as you swing at the ball. Even when you shank, slice, duck hook, chili dip...."nice shot." When you putt six feet past the hole, he says "great stroke; you were robbed." He's just looking for you to say "nice shot" every time he hits the ball. He gives all this approval because he seeks it in return. When the Two says "nice shot" as you put one in the water, you just want to punch him. The Two is a pooh.

The Three is the Performer. This is the guy who holds his finish for ten seconds so everybody can see what great form he has. He is forever giving the pumped fist in the air sign to let everyone know what a great shot he just made. He runs around the green when he chips one in. He pretends his putter is a sword and he fences an imaginary opponent after he sinks a putt. He drops to his knees and falls on the ground when he lips out a three-footer. Whereas the Giver is forever heaping praise, the Performer is forever demanding it. "Did you see that shot!" (His own, of course.) "Am I good, or what?" is the Three's favorite question. The Three's favorite words are me, me, and me..

The Four is the Romantic. This is the guy who's forever talking about the time he played the Old Course in St. Andrews. He's always telling stories about the

time he was playing Ballybunion in gale force conditions coming in off the Atlantic and he had to hit to a 180-yard three par running parallel to the Ocean and the hole was across a canyon and the smart shot would have been to hit to the bottom of the canyon and chip up onto the green under such conditions but no, he had to aim out at the beach and whack a 2-iron and his ball carried at least 150 yards eastwards into another canyon and this happened three times until he was hitting 7 off the tee and he finally got smart and put it into the canyon in front of him and chipped on and one-putted for a nine, the best nine he ever had. The Four is a bore.

The Five is the Observer. This guy can be a pleasure to play with since he doesn't say a word the whole round. He just kind of grunts every once in a while but generally he maintains a totally detached attitude throughout the round. He seems to be intensely interested in your shots, as he seems to glare right through you from time to time, but he never says anything. It's kind of fun to watch a Giver and an Observer together. The Giver keeps telling the Observer what a great shot he just made and the Observer doesn't respond. He just quietly goes about his business of mishitting the golf ball. The Five is a good ride.

The Six is the Trooper. To this guy, the golf course is a battleground and every bunker, every tree, every blade of grass has been placed there specifically as an obstacle to him. Even the wind decides to blow only when it can oppose him. The Six is the guy who aims fifty feet right of the green because there is a bunker guarding the left approach. When he putts, he always seems to tap his ball over a spike mark that diverts his ball from the hole. If he mishits a ball, he looks up for the cause of his distraction. When he lips out, he stands over the hole, staring it down as if to say that he knows someone put a dip in front of the hole deliberately to stop his ball short. The Six gets no kicks.

The Seven is the Epicure. This is the guy who gets pleasure out of every golf shot, *his* when the shots are good and *others'* when the shots are bad. The Epicure is a pleasure to play with. He really enjoys the game and his enjoyment can be contagious if you are not playing too poorly. He sees every shot as an opportunity to try something out. If he hits behind a tree, it's a chance to try some shot with the face turned in a bit while aiming right of the tree, hoping for a draw around the tree towards the green just like the shot he read about in a book last week. This guy's always talking about books he's read or videos he's bought. He can't wait to hit into a sand trap to try out the new Greg Norman tip he saw on a television show. He loves to hit over water and takes great pleasure in pretending he sees dirt where there is water. The Seven also likes to drink beer while he plays, and is forever stopping the refreshment cart for a beer or a hotdog. I like a game with the Seven. If he's having a good round, he'll usually offer to buy you a beer during one of his many stops for refreshments. The Seven is from heaven.

The Eight is the Boss. This is the guy who's always telling everybody whose

turn it is. "You're away," the Eight will say when no one asks for his opinion and everyone knows who is away. The Eight insists on honors when he has honors, otherwise it is "ready golf." The Eight knows the rules of golf and insists that everyone play as if they were in the Masters. If he doesn't know the rules of golf, he'll make them up as needed. The Boss is actually handy when one or two of the other players don't know the rules of golf. If the Boss sees you hit one out of bounds, he reminds you right away to hit another ball from the same spot. If you're in a hazard and look puzzled, he'll let you know that you can play it from there or even pick and clean it if winter rules are in force. I don't mind playing with an Eight. The Eight can be great.

Finally, there is the Mediator. Nothing seems to bother the Nine; at least he doesn't show his emotions when things are going bad. But he does tend to apologize frequently. "Sorry I'm not playing well today." The Nine loves to yell "Fore" whenever he hits a ball within 100 yards of any living being. And he loves to console the other player who has just bungled another shot. The Mediator is especially fond of complimenting you on your third shot out of a bunker. "That's the way to do it," he'll shout as you ask yourself why you couldn't have done that on the previous two tries. The Mediator is forever trying to make you feel better. "You've been just missing them all day." "A foot to the right or left here or there and you'd have had a hell of a good round!" Nines are fine.

Without the enneagram as a guide, where would golf be today? How could anyone not see that the enneagram, when understood properly, is a source of great understanding about people and relationships?

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reader comments:

E-rays

18 Sep 1998

The claims about Erdstrahlen are closely related to the claims of Wasseradern, which could be translated as "water veins". Water veins are said to be the paths that groundwater runs in. They are said to be responsible for cancer, insomnia, and several other illnesses, especially when they cross under your bed.

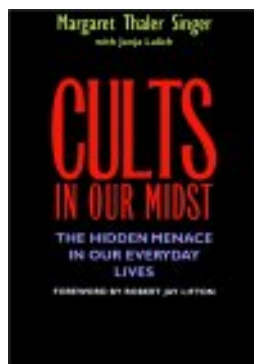
Wasseradern emit E-rays. Roads where accidents occur more often than elsewhere are found to be strongly "E-ray emitting". Certain animals can "feel" these E-rays. Cats for instance would never lie down where E-rays occur; bees are attracted to these places. And so on.

The claims about Erdstrahlen and Wasseradern are indeed very popular in Germany and the German-speaking countries like Austria and Switzerland. "Wasseradern" have a tradition of some hundred years, whereas "Erdstrahlen" seem to be connected to the 20th century. At least I found no older source.

It is interesting that almost everybody [in Germany] knows about things that do not exist. Ask anybody about Wasseradern and Erdstrahlen, everybody has heard about it and accepts it as a fact. Ask them about what groundwater really does in the ground, and no one will be able to tell you.

Heiko Diekmann, Hamburg, Germany

reply: There are many people everywhere who know about things that do not exist. Psychologist Thomas Gilovich wrote a book about them called [*How We Know What Isn't So: The Fallibility of Human Reason in Everyday Life*](#) (New York: The Free Press, 1993) [\\$12.76](#) I highly recommend it.



Landmark Forum/Landmark Education Corporation

[Landmark Forum](#) is a [Large Group Awareness Training program](#) in which up to 150 people take a seminar together aimed at helping them realize their true potential.

Landmark Forum began in 1985 by those who had purchased the [est](#) "technology" from Werner Erhard. In 1991 the group changed its name to Landmark Education Corporation (LEC), which continues to offer the Landmark Forum training, along with several other programs emphasizing communication and productivity. Erhard's brother, Harry Rosenberg, heads LEC, which does some \$50 million a year in business and has attracted some 300,000 participants. LEC is headquartered in San Francisco, as was est, and has 42 offices in 11 countries. Apparently, however, Erhard is not involved in the operation of LEC.

LEC is aimed at New Age explorers of the 1990s, not the Flower Children from the 60s and 70s who were attracted to est. The search for "It", which characterized est, is out. Also out is the Zen master approach of est, which was often abusive, profane, demeaning and authoritarian. The Forum is apparently just as authoritarian as est but not as profane or abusive.

LEC aims to help people transform their lives by teaching them specific communication and life skills along with some heavy philosophical training. The advertised goals of LEC seem very grand and very vague. The programs are hailed as "original, innovative and effective." They "allow participants to produce extraordinary and even miraculous results, and provide a useful, practical new freedom which brings a quality of effectiveness and plan to one's everyday life." Landmark is dedicated to "empowering people in generating unlimited possibilities and making a difference. Our work provides limitless opportunities for growth and development for individuals, relationships, families, communities, businesses, institutions and society as a whole." They are "successful" and "internationally recognized." They are "committed to generating extraordinary communication --powerful listening and committed speaking that results in self-expression and fulfillment." Landmark is "exciting, challenging and enjoyable." "Well being, self-expression, accountability and integrity are the tenets upon which we stand. This stand leads to our extraordinary customer, assistant and employee satisfaction." And, of course, LEC wants to help you fulfill all your human potential, your "capacity to create, generate, invent and design from nothing." [Landmark Education Charter]

I have never attended a session of either est or Landmark but from what I can gather from those who have, the experience is not likely to be dull. [Jill P. Capuzzo](#) writes that "Other seminars may offer supportive hugs; this one hits you between the eyes." She also claims that "One of the most irritating aspects of The Forum is the hard sell to sign up future participants. Leaders encourage people to bring friends and family to [a] session to help celebrate their newfound love of life and invite them to enroll in the next available weekend." Capuzzo claims that 20 percent of the participants in her sessions brought visitors to the open session and nearly half the original participants signed up for an advanced course.

[Andy Testa](#), on the other hand, posted an account of his experience with Landmark Forum, in which he claims that he was hounded by recruiters who insisted that his resistance was proof he needed their help.

Some people claim to have had breakdowns after attending such programs as Landmark Forum [see Lell, who had one after attending Landmark sessions, and [Abstracts of Articles in Psychological Journals concerning est and The Forum](#)]. According to Robert Howe, [Stephanie Ney](#), 45, claims that a two-day Landmark Forum seminar "stripped her of her natural psychological defenses and unleashed the specter of a failed relationship with her father," leading to a nervous breakdown and commitment to a psychiatric clinic. Yet, many of those who seek out [cults](#) like [Scientology](#) or self-help programs such as Landmark are troubled already. Some are deeply troubled and the training might send them over the edge. But whose fault is that? Such people might have gone to the movies and been pushed over the edge, like "Heinrich Pommerenke, who was a rapist, abuser, and mass slayer of women in Germany." He "was prompted to his series of ghastly deeds by Cecil B. DeMille's *The Ten Commandments*."*

[Another participant](#) describes his Forum experience as "the most powerful and dangerous experience in my life." He claims that he was so disoriented after the seminar that he couldn't work for three days. He claims that those "three days after my Forum were a living hell, unlike anything I had experienced in 21 years of formal training and six years of medical residency in New York City." However, this participant also said that he would do it again!

A [Hare Krishna devotee](#) advises fellow spiritual travelers to take the LEC training. He claims that the average person reports that Landmark seminars change lives for the better by bringing about improved effectiveness in relating to others, increased personal productivity, greater self-confidence, help in making good decisions by learning how to identify what's really important in life, and help in learning how to live a more satisfying life without making life more complicated. He thinks Landmark can help people achieve transcendental realization. Paul Derengowski, formerly of the

Christian cult-watch group Watchman.org, thinks that Landmark "has theological implications." Since the training seems to emphasize that one's past and current beliefs are hindering self-growth, it is easy to see why defenders of traditional religions would fear such programs as Landmark Forum. In effect, to those who are members of traditional faiths, programs such as Landmark are saying: your religion is a hindrance to becoming your true self.

There is evidence that many of those who sign up for LGAT programs such as Landmark Forum are having major problems in their lives. Y. Klar, R. Mendola, J. D. Fischer, R. C. Silver, J. M. Chinsky and B. Goff, reported in the *Journal of Consulting & Clinical Psychology* [1990;58(1):99-108] that

A study was conducted to assess the psychosocial characteristics of individuals who become involved in large group awareness training (LGAT) programs. Prospective participants in The Forum, which has been classified as an LGAT, were compared with nonparticipating peers and with available normative samples on measures of well-being, negative life events, social support, and philosophical orientation. Results revealed that prospective participants were significantly more distressed than peer and normative samples of community residents and had a higher level of impact of recent negative life events compared with peer (but not normative) samples.

People who are having problems, are dissatisfied, feel unfulfilled, desire direction, etc., are the kind of people who sign up for seminars that will help them. It is almost inevitable that the vast majority of people who would get involved be in some sort of distress. Likewise, by "[regression](#)" we would expect many people to have upswings and experience fewer problems, be more satisfied and fulfilled, feel less lost, etc., after periods of distress. It is predictable that many participants in self-growth programs will attribute their sense of improvement to the programs they've taken, but much of their reasoning may be [post hoc](#). Furthermore, their sense of improvement might not be matched by improved behavior. Just because they feel they've benefited doesn't mean they have. Research has shown that the *feelings* of having benefited greatly from participation in an LGAT do not correspond to beneficial changes in behavior (Michael Langone, "Large Group Awareness Training Programs," *Cult Observer*, v. 15, n. 1, 1998).

While some Landmark participants may have had breakdowns after their training, it would be a mistake to infer that large numbers of emotionally

unbalanced people are signing up for the program. "Based on psychic distress (symptoms) and impairment measures, those who sought out growth groups were not overly represented by those who were particularly disturbed or impaired in their lives" (Leibermann in Fuhriman and Burlingame 1994).

In fairness, it is also post hoc reasoning to assume that very disturbed individuals who deteriorate rapidly after attending LGAT seminars, do so because of their participation. Those in need of psychotherapy should not participate in LGAT programs. They may be too intense for the emotionally fragile. It is not without good reason that Landmark Forum requires prospective participants to sign a statement declaring that, to the best of their knowledge, they are mentally and physical well. This gives notice that the program is not for the mentally or physically unstable. It also may protect Landmark from legal action should a client have a breakdown after attending the Forum, but there is no guarantee that such a signed statement would necessary exculpate Landmark should it be charged with causing someone's mental or physical breakdown.

The training emphasizes not only how to communicate better but how to relate better to those around you, as it forces the participant to reflect on and examine his or her life. Such courses, if they are really good, will inspire many people to create themselves anew. Many will see positive effects immediately. In fact, many are so impressed that they want to share the experience with others. They become zealots and recruiters for the program. Part of their zealotry, however, derives from the intense pressure put on them to bring their friends and family into the program, and to sign up for follow-up courses. The main marketing tool Landmark uses is high-pressure direct contact with participants, including phone calls that border on harassment, according to some participants. Some critics even think that recruitment is the main goal of the program ([Faltenmayer](#)).

the varieties of the LEC experience

From what I have read by those who have been involved in **est** or Landmark Forum, the experience is at minimum disrupting and provocative, at best life transforming. This would indicate that something reaches deep into the emotional life of some participant's. Some, like Rabbi Yisroel Persky, claim that what they are being given are little more than "common-sense concepts cloaked in esoteric packaging" ([Faltenmayer](#)). But what is common-sense to an educated and well-read person (in the fields of psychology, philosophy, and communication arts), may seem like golden insights to others. Yet, while there must be something of substance to the content of the message (culled from the great minds, after all) the importance of the messenger and the way the message is delivered cannot be overestimated. The messenger must be believable. He or she must appear sincere. He must exude confidence. She must know how to use her voice and body to get her message across. He must be a master of communication skills. She must have wit and humor. He must

be a raconteur. She must not only talk the talk but appear to clearly walk the walk as well. And he must do it with a large group and utilize the energy and enthusiasm of the group members to infect each other. If she or he is successful, the participants will leave charged up and ready to take on the world. The *revival* will have *revived* them. They will leave running on sixteen cylinders. They will be tuned up, turbocharged, and empowered to change their lives.

That is why so many people feel they have benefited from programs such as Landmark Forum, [neurolinguistic programming](#), est (or even [Scientology](#) or [Amway](#)). The programs have given people a positive direction and focus, and surrounded them with like-minded folks for reinforcement. They have helped them achieve peace of mind or to accomplish goals they had been unable to accomplish heretofore. They have helped with personal relationships with spouses and children or helped them justify getting out of relationships with their friends and family. The program has forced them to be more self-conscious, forced them to think and examine their lives, something most people don't do on an ordinary Tuesday. Any time a rational person reflects on his or her life, or on some of the bigger issues in life, it feels good or it puts things in perspective. Either way, it is usually satisfying.

Many who take the LEC training feel that Landmark Forum has given them the power and self-esteem they lacked. Some of the good feeling and carryover in behavior may be long-lasting, or it may be temporary, like the rush that follows an inspirational meeting, or the new perception of reality that follows an intense emotional experience. Much of the improvement in feeling may be due to predictable [regression](#) and might explain the urge of many participants to want to take the follow-up courses and advanced seminars. These can get quite costly. For example: LEC offers an advanced course for \$700 and two advanced courses on Communication and Power for \$1,050. LEC charges \$1,700 for The Wisdom Program.

See related entries on [est](#), [firewalking](#), [Large Group Awareness Training programs](#), [neurolinguistic programming](#) and [the regressive fallacy](#).

further reading

[reader comments](#)

- [Landmark Forum \(a list of critical links\)](#)
- ["The Best Of Est? Werner Erhard's legacy lives on in a kinder, gentler and lucrative version of his self-help seminars"](#) by Charlotte Faltermayer
- [Rick Ross: Landmark Forum](#)

- [Gil Steiner's views on Landmark Forum](#)
- [Abstracts of Articles in Psychological Journals concerning est and The Forum](#)
- [The Awareness Page](#) - everything you wanted to know about various LGATs
- [Landmark Education](#)

[Ankerberg, John and John Weldon. *Encyclopedia of New Age Beliefs* \(Harvest House Publishers, Inc., 1996\).](#)

Barry, Dave. "Altered States" in *The Miami Herald*, April 13, 1997. (Humorist Dave Barry takes Peter Lowe's SUCCESS 1997 12-hour success seminar featuring Anthony Robbins, Elizabeth Dole, Rabbi Harold Kushner, Brian Tracy, Lou Holtz, Jim Morris, Peter Lowe, Pat Riley, Dr. Ted Broer, George Bush, and Dan Kennedy.)

[Fuhriman Addie and Gary M. Burlingame, eds. *Handbook of Group Psychotherapy: An Empirical and Clinical Synthesis* \(Wiley-Interscience, 1994.\)](#) See M. Leiberman, "Growth Groups in the 1980's: Mental Health Implications", Chapter 15.

Lell, Martin. *Das Forum: Protokoll einter Gehirnwäsche. Der Psycho-Konzern Landmark Education*. May 1997. Deutscher Taschenbuch Verlag GmbH & Co. KG, München .

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Last updated 07/13/02



[koro](#)

[Large Group Awareness Training programs](#)



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[KFC crew gets
burned too](#)

[Burger King 'team-
builders' get burned](#)

BY ELAINE
WALKER, Oct 6,
2001

Is it safe? Eli Tyler of El Cajon, California, was one of seven people hospitalized with severe burns to the bottoms of their feet from a fire-walking ceremony at an American Association for Nude Recreation convention in August, 2000.

Fred Gilbert, a professional fire-walker, apparently told a bare naked lie when he said that he was providing "a safe and spiritual experience where you walk through your past to arrive at your future."

Tyler is suing Gilbert for "using the wrong type of

firewalking

Firewalking refers to the activity of walking on hot coals, rocks or cinders without burning the soles of one's feet. In some cultures [e.g., India], firewalking is part of a religious ritual and is associated with the mystical powers of [fakirs](#). In America, firewalking is part of New Age religion, i.e., self-empowering motivational activity.

[Tony Robbins](#) popularized firewalking as an activity for demonstrating it is possible for people to do things which seem impossible to them; the firewalk is a technique for turning fear into power. Robbins doesn't consider the power of the mind to overcome fear of getting burnt as [paranormal](#), however.

Overcoming this fear is presented as a step in restructuring one's mind, almost as if this trial by fire was some sort of initiation into an esoteric and very special group of risk-takers. To the timid and those who feel powerless amongst all the dynamic firebrands around them, such a feat as walking on hot coals must seem a significant event.

Robbins may have popularized firewalking but Tolly Burkan, founder of [The Firewalking Institute for Research and Education](#), claims he was the first to introduce the practice to North America. According to Burkan, firewalking is "a method of overcoming limiting beliefs, phobias and fears."

Walking across hot coals without getting burned does seem impossible to many people, but in fact it is no more impossible than putting your hand in a hot oven without getting burned. As long as you keep your hand in the air and don't touch the oven, its metal racks or any ceramic or metal pots, you won't get burned even if the oven is extremely hot. Or, if you do touch the oven, metal racks or pots, and are wearing insulating gloves or using "hot pads," you won't get burned. Why? Because "the air has a low heat capacity and a poor thermal conductivity...." while "our bodies have a relatively high heat capacity...."(Leikind and McCarthy, 188). And an insulator will insulate! Thus, even if the coals are very hot (1,000 to 1,200 degrees), a person with "normal" soles won't get burned as long as he or she doesn't take too long to walk across the coals and as long as the coals used do not have a very high heat capacity. Volcanic rock and certain wood embers will work just fine.

Also, "both hardwood and charcoal are good thermal insulators.... Wood is just as good an insulator even when on fire, and charcoal is almost four times better as an insulator than is dry hardwood. Further, the ash that is left after the charcoal has burnt is just as poor a conductor as was the hardwood or charcoal" ([Willey](#)).

wood, starting the fire walk before ash formed on the wood and failing to have medical personnel present, among other things."*

Nevertheless, some people do get burned walking across hot coals, not because they lack faith or willpower, but because the coals are too hot or are have a relatively high heat capacity, or because the firewalker's soles are thin or he doesn't move quickly enough. But even very hot coals with a high heat capacity can be walked over without getting burned if one's feet are insulated, e.g., with a liquid such as sweat or water. (Think of how you can wet your finger and touch a hot iron without getting burned.) Again, one must move with sufficient speed or one will get burned.

However, even armed with this knowledge, it still takes courage to firewalk. When Michael Shermer of *Skeptic* magazine did a firewalk for "The Unexplained" television program, he had the knowledge but the fear was obviously still there. Our instincts are telling us: *don't do this, you idiot!* Firewalking requires some faith as well as knowledge: faith that the coals were prepared properly, that you can move fast enough to avoid getting burned, and that something will work in practice as you know it should in theory. Even so, whether the firewalker gets burned depends on how the coals were prepared and on how fast the firewalker moves, rather than on willpower, the power of the mind to create a protective shield, or any other paranormal or supernatural force.

further reading

[reader comments](#)

- [FIREWALKING Myth vs. Physics](#) by David Willey
- [Bill Latura's Page on Firewalking](#) This is the same Bill Latura who is responsible for the fine [Left Hemisphere](#) Page
- [Scientific study of Firewalking](#) by Kjetil Kjernsmo
- [Fire Walking](#) -from Steve "Blackfoot" Roberts of the Australian Skeptics

["An Investigation of Firewalking," Bernard J. Leikind and William J. McCarthy, in *The Hundredth Monkey and Other Paradigms of the Paranormal*, ed. Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\).](#)

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Last updated 11/29/02

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neuro-linguistic programming (NLP)

I think the more you want to become more and more creative you have to not only elicit other peoples' (plural) strategies and replicate them yourself, but also modify others' strategies and have a strategy that creates new creativity strategies based on as many wonderful states as you can design for yourself. Therefore, in a way, the entire field of NLP™ is a creative tool, because I wanted to create something new.

--Richard Bandler

Neuro-linguistic Programming (NLP) is one of many New Age [Large Group Awareness Training](#) programs. NLP is a competitor with [Landmark Forum](#), [Tony Robbins](#), and legions of other enterprises which, like the [Sophists of ancient Greece](#), travel from town to town to teach their wisdom for a fee. Robbins is probably the most successful "graduate" of NLP. He started his own empire after transforming from a self-described "fat slob" to a [firewalker](#) to (in [his own words](#)) "the nation's foremost authority on the psychology of peak performance and personal, professional and organizational turnaround." The founders of NLP, [Richard Bandler](#) and [John Grinder](#), might disagree.

NLP has something for everybody, the sick and the healthy, individual or corporation. In addition to being an agent for change for healthy individuals taught *en masse*, NLP is also used for individual psychotherapy for problems as diverse as phobias and schizophrenia. NLP also aims at transforming corporations, showing them how to achieve their maximum potential and achieve great success.

What is NLP?

NLP was begun in the mid-seventies by a linguist (Grinder) and a [mathematician \(Bandler\)](#) who had strong interests in (a) successful people, (b) psychology, (c) language and (d) computer programming. It is a difficult to define NLP because those who started it and those involved in it use such vague and ambiguous language that NLP means different things to different people. While it is difficult to find a consistent description of NLP among those who claim to be experts at it, one metaphor keeps recurring. *NLP claims to help people change by teaching them to program their brains.* We were given brains, we are told, but no instruction manual. NLP offers you a user-manual for the brain. The brain-manual seems to be a metaphor for NLP training, which is sometimes referred to as "software for the brain." Furthermore, NLP, consciously or unconsciously, relies heavily upon (1) the notion of the [unconscious mind](#) as constantly influencing conscious thought and action; (2) metaphorical behavior and speech, especially building upon the methods used in Freud's *Interpretation of Dreams*; and (3) [hypnotherapy](#)

as developed by [Milton Erickson](#). NLP is also heavily influenced by the work of [Gregory Bateson](#) and [Noam Chomsky](#).

One common thread in NLP is the emphasis on teaching a variety of communication and persuasion skills, and using self-hypnosis to motivate and change oneself. Most NLP practitioners advertising on the WWW make grand claims about being able to help just about anybody become just about anything. The following is typical:

NLP can enhance all aspects of your life by improving your relationships with loved ones, learning to teach effectively, gaining a stronger sense of self-esteem, greater motivation, better understanding of communication, enhancing your business or career... and an enormous amount of other things which involve your brain. [2](#)

[Some advocates claim](#) that they can teach an infallible method of telling when a person is lying. Some claim that people fail only because their teachers have not communicated with them in the right "language". One [NLP guru](#), Dale Kirby, informs us that one of the presuppositions of NLP is "No one is wrong or broken." So why seek remedial change? On the other hand, what Mr. Kirby does have to say about NLP which *is* intelligible does not make it very attractive. For example, he says that according to NLP "There is no such thing as failure. There is only feedback." Was NLP invented by the U.S. Military to explain their "incomplete successes"? When the space shuttle blew up within minutes of launch, killing everyone on board, was that "only feedback"? If I stab my neighbor and call it "performing non-elective surgery" am I practicing NLP? If I am arrested in a drunken state with a knife in my pocket for threatening an ex-girlfriend, am I just "trying to rekindle an old flame"?

Another NLP presupposition which is false is "If someone can do something, anyone can learn it." This comes from people who claim they understand the brain and can help you reprogram yours. They want you to think that the only thing that separates the average person from Einstein or Pavarotti or the World Champion Log Lifter is NLP.

NLP is said to be the study of the structure of *subjective experience*, but a great deal of attention seems to be paid to observing *behavior* and teaching people how to read "body language." But there is no common structure to non-verbal communication, any more than there is a common structure to dream symbolism. There certainly are some well-defined culturally determined non-verbal ways of communicating, e.g., pointing the back of the hand at another, lowering all fingers but the one in the middle, has a definite meaning in American culture. But when someone tells me that the way I squeeze my nose during a conversation means I am signaling him that I think his idea stinks, how do we verify whether his interpretation is correct or not? I deny it. He knows the structure, he says. He knows the meaning. I am not aware of my

signal or of my feelings, he says, because the message is coming from my subconscious mind. How do we test these kinds of claims? We can't. What's his evidence? It must be his brilliant intuitive insight because there is no empirical evidence to back up this claim. Sitting cross-armed at a meeting might not mean that someone is "blocking you out" or "getting defensive". She may just be cold or have a back ache or simply feel comfortable sitting that way. It is dangerous to read too much into non-verbal behavior. Those splayed legs may simply indicate a relaxed person, not someone inviting you to have sex. At the same time, much of what NLP is teaching is how to do [cold reading](#). This is valuable, but an art not a science, and should be used with caution.

Finally, NLP claims that each of us has a Primary Representational System (PRS), a tendency to think in specific modes: visual, auditory, kinaesthetic, olfactory or gustatory. A person's PRS can be determined by words the person tends to use or by the direction of one's eye movements. Supposedly, a therapist will have a better rapport with a client if they have a matching PRS. None of this has been supported by the scientific literature.*

Bandler's Institute

Bandler's First Institute of Neuro-Linguistic Programming™ and Design Human Engineering™ has this to say about NLP:

"Neuro-Linguistic Programming™ (NLP™) is defined as the study of the structure of subjective experience and what can be calculated from that and is predicated upon the belief that all behavior has structure....Neuro-Linguistic Programming™ was specifically created in order to allow us to do magic by creating new ways of understanding how verbal and non-verbal communication affect the human brain. As such it presents us all with the opportunity to not only communicate better with others, but also learn how to gain more control over what we considered to be automatic functions of our own neurology." [3](#)

We are told that Bandler took as his first models [Virginia Satir](#) ("The Mother of Family System Therapy"), [Milton Erickson](#) ("The Father of Modern Hypnotherapy") and [Fritz Perls](#) (early advocate of Gestalt Therapy) because they "had amazing results with their clients." The linguistic and behavioral patterns of such people were studied and used as models. These were therapists who liked such expressions as 'self-esteem', 'validate', 'transformation', 'harmony', 'growth', 'ecology', 'self-realization', 'unconscious mind', 'non-verbal communication', 'achieving one's highest potential'-- expressions which serve as beacons to New Age transformational psychology. No neuroscientist or anyone who has studied the brain is mentioned as having had any influence on NLP. Also, someone who is not mentioned, but who

certainly seems like the ideal model for NLP, is Werner Erhard. He started [est](#) a few miles north (in San Francisco) of Bandler and Grinder (in Santa Cruz) just a couple of years before the latter started their training business. Erhard seems to have set out to do just what Bandler and Grinder set out to do: help people transform themselves and make a good living doing it. NLP and est also have in common the fact that they are built up from a hodgepodge of sources in psychology, philosophy, and other disciplines. Both have been brilliantly marketed as offering the key to success, happiness, and fulfillment to anyone willing to pay the price of admission. Best of all: no one who pays his fees fails out of these schools!

the ever-evolving Bandler

When one reads what Bandler says, it may lead one to think that some people sign on just to get the translation from the Master Teacher of Communication Skills himself:

One of the models that I built was called strategy elicitation which is something that people confuse with modeling to no end. They go out and elicit a strategy and they think they are modeling but they don't ask the question, "Where did the strategy elicitation model come from?" There are constraints inside this model since it was built by reducing things down. The strategy elicitation model is always looking for the most finite way of accomplishing a result. This model is based on sequential elicitation and simultaneous installation.

Many would surely agree that with communication like this Bandler must have a very special code for programming his brain.

Bandler claims he keeps evolving. To some, however, he may seem mainly concerned with protecting his economic interests by trademarking his every burp. He seems extremely concerned that some rogue therapist or trainer might steal his work and make money without him getting a cut. One might be charitable and see Bandler's obsession with trademarking as a way to protect the integrity of his brilliant new discoveries about human potential (such as [charisma enhancement](#)) and how to sell it. Anyway, to clarify or to obscure matters--who knows which?-- what Bandler calls the real thing can be identified by a license and the trademark™ from [The Society of Neuro-Linguistic Programming™](#). However, do not contact this organization if you want detailed, clear information about the nature of NLP, or [DHE \(Design Human Engineering™\)](#) (which will teach you to hallucinate designs like Tesla did), or PE (Persuasion Engineering™) or MetaMaster Track™, or Charisma Enhancement™, or Trancing™, or whatever else Mr. Bandler and associates are selling these days. Mostly what you will find on Bandler's page is information on how to sign up for one of his training sessions. For example,

you can get 6 days of training for \$1,800 at the door (\$1,500 prepaid). What will you be trained in or for? Bandler has been learning about "the advancement of human evolution" and he will pass this on to you. For \$1,500 you could have taken his 3-day seminar on Creativity Enhancement (where you could learn why it's not creative to rely on other people's ideas, except for Bandler's).

Grinder and corporate NLP

John Grinder, on the other hand, has gone on to try to do for the corporate world what Bandler is doing for the rest of us. He has joined Carmen Bostic St Clair in an organization called [Quantum Leap](#), "an international organisation dealing with the design and implementation of cross cultural communication systems." Like Bandler, Grinder claims he has evolved new and even more brilliant "codes".

...the New Code contains a series of gates which presuppose a certain and to my way of thinking appropriate relationship between the conscious and unconscious parts of a person purporting to train or represent in some manner NLP. This goes a long way toward insisting on the presence of personal congruity in such a person. In other words, a person who fails to carry personal congruity will in general find themselves unable to use and/or teach the New Code patterns with any sort of consistent success. This is a design I like very much - it has the characteristic of a self-correcting system.

It may strike some people that terms like "personal congruity" are not very precise or scientific. This is probably because Grinder has created a "new paradigm". Or so he says. He denies that his and Bandler's work is an eclectic hodgepodge of philosophy and psychology, or that it even builds from the works of others. He believes that what he and Bandler did was "create a [paradigm](#) shift."

The following claim by Grinder provides some sense of what he thinks NLP is:

My memories about what we thought at the time of discovery (with respect to the classic code we developed - that is, the years 1973 through 1978) are that we were quite explicit that we were out to overthrow a paradigm and that, for example, I, for one, found it very useful to plan this campaign using in part as a guide the excellent work of Thomas Kuhn (*The Structure of Scientific Revolutions*) in which he detailed some of the conditions which historically have obtained in the midst of paradigm shifts. For example,

I believe it was very useful that neither one of us were qualified in the field we first went after - psychology and in particular, its therapeutic application; this being one of the conditions which Kuhn identified in his historical study of paradigm shifts. Who knows what Bandler was thinking?

One can only hope that Bandler wasn't thinking the same things that Grinder was thinking, at least with respect to Kuhn's classic text. Kuhn did not promote the notion that not being particularly qualified in a scientific field is a significant condition for contributing to the development of a new paradigm in science. Furthermore, Kuhn did not provide a model or blueprint for *creating* paradigm shifts! His is an *historical* work, describing what he believed to have occurred in the *history of science*. Nowhere does he indicate that a single person at any time did, or even could, create a paradigm shift in science. Individuals such as Newton or Einstein might provide theories which require paradigm shifts for their theories to be adequately understood, but they don't create the paradigm shifts themselves. Kuhn's work implies that such a notion is preposterous.

Grinder and Bandler should have read Kant before they set off on their quixotic pursuit. [Kant's "Copernican revolution"](#) might be considered a paradigm shift by Bandler and Grinder, but it is not what Kuhn was talking about when he was describing the historical development of scientific theories. Kuhn restricted his concern to science. He made no claim that anything similar happens in philosophy and he certainly did not imply that anything NLP did, or is doing, constitutes a paradigm shift. Kuhn claimed that paradigm shifts occur over time when one theory breaks down and is replaced by another. Scientific theories break down, he claimed, when new data can't be explained by the old theories or when they no longer explain things as well as some newer theory. What Bandler and Grinder did was not in response to any crisis in theory in any scientific field and so cannot even be considered as *contributing* to a paradigm shift much less being one itself.

What Grinder seems to think Kuhn meant by "paradigm shift" is something like a gestalt shift, a change in the way we look at things, a change in perspective. Kant might fit the bill for this notion. Kant rejected the old way of doing epistemology, which was to ask 'how can we bring ourselves to understand the world?' What we ought to ask, said Kant, is 'how is it possible that the world comes to be understood by us?' This was truly a revolutionary move in the history of philosophy, for it asserted that the world must conform to the conditions imposed on it by the one experiencing the world. The notion that one has the truth when one's mind conforms with the world is rejected in favor of the notion that all knowledge is subjective because it is impossible without experience which is essentially subjective. Copernicus had said, in essence, *let's see how things look with the Sun at the center of the universe, instead of the Earth*. Kant said, in essence, *let's examine how we know the world by assuming that the world must conform to the mind, rather than the mind conform to the world*. Copernicus, however, could be considered as

contributing to a paradigm shift in science. If he were right about the earth and other planets going around the sun rather than the sun and the other planets going around the earth--and he was--then astronomers could no longer do astronomy without profound changes in their fundamental concepts about the nature of the heavens. On the other hand, there is no way to know if Kant is right. We can accept or reject his theory. We can continue to do philosophy without being Kantians, but we cannot continue to do astronomy without accepting the heliocentric hypothesis and rejecting the geocentric one. What did Grinder and Bandler do that makes it impossible to continue doing psychology or therapy or semiotics or philosophy without accepting their ideas? Nothing.

Do people benefit from NLP?

While I do not doubt that many people benefit from NLP training sessions, there seem to be several false or questionable assumptions upon which NLP is based. Their beliefs about the unconscious mind, hypnosis and the ability to influence people by appealing directly to the subconscious mind are unsubstantiated. All the scientific evidence which exists on such things indicates that what NLP claims is not true. You cannot learn to "speak directly to the unconscious mind " as Erickson and [NLP claim](#), except in the most obvious way of using the power of suggestion.

NLP claims that its experts have studied the thinking of great minds and the behavior patterns of successful people and have extracted *models* of how they work. "From these models, techniques for quickly and effectively changing thoughts, behaviors and beliefs that get in your way have been developed."⁴ But studying Einstein's or Tolstoy's work might produce a dozen "models" of how those minds worked. There is no way to know which, if any, of the models is correct. It is a mystery why anyone would suppose that any given model would imply techniques for quick and effective change in thoughts, actions and beliefs. I think most of us intuitively grasp that even if we were subjected to the same experiences which Einstein or Tolstoy had, we would not have become either. Surely, we would be significantly different from whom we've become, but without their brains to begin with, we would have developed quite differently from either of them.

in conclusion

It seems that NLP develops models which can't be verified, from which it develops techniques which may have nothing to do with either the models or the sources of the models. NLP makes claims about thinking and perception which do not seem to be supported by neuroscience. This is not to say that the techniques won't work. They may work and work quite well, but there is no way to know whether the claims behind their origin are valid. Perhaps it doesn't matter. NLP itself proclaims that it is pragmatic in its approach: what matters is whether it [works](#). However, how do you measure the claim "NLP

works"? I don't know and I don't think NLPers know, either. Anecdotes and testimonials seem to be the main measuring devices. Unfortunately, such a measurement may reveal only how well the trainers teach their clients to persuade others to enroll in more training sessions.

See **related entries** on [Werner Erhard and est](#), [firewalking](#), [hypnosis](#), [Landmark Forum](#), [Large Group Awareness Training](#), [Frederick Lenz \(Rama\)](#), [memory](#), [paradigm](#), [psychoanalysis](#) and [reverse speech](#).

postscript: On a more cheerful note, [Bandler has sued Grinder for millions of dollars](#). Apparently, the two great communicators and paradigm innovators couldn't follow their own advice or perhaps they are modeling their behavior after so many other great Americans who have found that the most lucrative way to communicate is by [suing](#) someone with deep pockets. Grinder has [published a statement on the WWW](#) regarding this unfortunate state of affairs. NLP is big on metaphors and I doubt whether this nasty lawsuit is the kind of metaphor they want to be remembered by. Is Bandler's putting a trademark on half a dozen expressions a sign of a man who is simply protecting the integrity of NLP or is it a sign of a [greedy megalomaniac](#)?

For more on more lawsuits, see [ANLP News](#).

further reading

reader comments

- [The Bandler Method](#) by Frank Clancy & Heidi Yorkshire (A 1989 article from *Mother Jones* magazine that accuses Bandler of alcohol and drug addiction, and argues he was guilty of the murder he was charged with in 1986.
- ["Bandler Unplugged"](#) **An interview with the head honcho himself. Read it. He reveals it all in this interview.**
- [1996 Interview with Dr John Grinder](#)
- [NLP Mega-Glossary](#)
- [Inspiritive's page on NLP](#)
- [A Scientific Assessment of NLP](#) by Dylan Morgan
- [NLP](#) - **Bandler's site**

Barry, Dave. "Altered States" in *The Miami Herald*, April 13, 1997. (Humorist Dave Barry takes Peter Lowe's SUCCESS 1997 12-hour success seminar featuring Anthony Robbins, Elizabeth Dole, Rabbi Harold Kushner, Brian Tracy, Lou Holtz, Jim Morris, Peter Lowe, Pat Riley, Dr. Ted Broer, George Bush, and Dan Kennedy.)

[Sacks, Oliver W. *An anthropologist on Mars : seven paradoxical tales* \(New York : Knopf, 1995\).](#)

[Sacks, Oliver W. *The man who mistook his wife for a hat and other clinical tales* \(New York : Summit Books, 1985\).](#)

[Sacks, Oliver W. *A leg to stand on* \(New York : Summit Books, 1984\).](#)

[Schacter, Daniel L. *Searching for Memory - the brain, the mind, and the past* \(New York: Basic Books, 1996\).](#)

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 [near-death experiences](#)

[Noah's ark](#) 

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reader comments:

Werner Erhard, est and Landmark Forum

17 May 2002

I'll mention a few memories, but I agree with [Paulette Caswell's](#) comments. First, people signing up for the course are required to fill out a detailed questionnaire, which you can't leave blank; you must tell them your reasons for taking the training (friend/problem/stress/etc.), and your medical history including psychiatric, if you are or have been in therapy, etc. (Paulette is slightly incorrect - only if you are currently in therapy must you provide a note from your shrink saying that he/she will be available for you, not everyone who's ever had therapy.) It is stressful and they do an appropriate screening before letting someone take it.

I took the "training" in D.C. in 1977. What I want to detail is the rationale behind some of the "harsh" treatment. The whole thing might be described as forcibly raising your consciousness, so you see the dumb things you do to screw your life up (the trainer does not attempt to tell 250 people what their dumb mistakes are; through interactions [a person wanting to speak raises their hand and is handed a microphone], he argues for the person to see his point for themselves, in their own minds, to their own satisfaction, of whether or not the point is true). To that end, at the beginning we were told we were "assholes"; but only the first day; once he had everyone's willing attention and willingness to participate (as he said, "if you're an 'observer,' we don't want you here), then that "abuse" was dropped. Most of the time is spent in 2-way dialogue, and "processes"; and each person is free to disagree. They tell you not to "believe" in est; hence the use of the word "get". If you "get" something then you see what they're talking about; if you don't understand something, then just "sit with it". I remember as I write this the comment that being in "mystery" about something (e.g., if you begin to wonder, "why do I spend my whole paycheck at the bar every Friday?") it's actually a high state of consciousness, and to just "sit with it."

Making one sit in a room for 3-4 hours between breaks, with no books, watches, food or snacks, deprives one of distractions, and this is what you learn: very often when some little (or big) unpleasantness happens, we reach for a crutch - food, cigarettes, drink, drugs, etc. They state emphatically that all these things are "suppressants", that food/drink/smoke/whatever is what our mind

automatically uses to smooth over discomfort, to avoid dealing with something, to avoid it. So is going to the bathroom. When you're sweating under the collar, nervous before a meeting with the boss, etc., you think you need to go to the bathroom, yet when things are fine you don't. The training informed us we act like, but are not, "tubes" (as in food goes in one end, out the other). Participants begin to see their own destructive behaviors, be it chain-smoking, compulsive shopping, overeating, or senseless base to phobias, etc.

The "processes" are hour-or-longer guided concentration exercises, sitting upright in chairs with eyes closed, are obviously similar to yoga, though there is no mention whatsoever of anything tied to religion. ("God" was only mentioned a couple times, and then only in passing; the time I remember well is when the trainer told us he could only tell us one thing about God: "She's black". No offense intended; for a WASP like me, the description of God as "the Black Lady" was an interesting thought, something of course I never heard in my several years at seminary.)

The "responsibility" thing is heavy. If you're a drunk on skid row ... if your spouse just divorced you ... if you just lost a fortune on the stock market, who's responsible? The liquor companies (maybe I should sue them)? The guy she ran off with (maybe I should put a contract on him)? Those wall-street high-fliers that used us like tools? No, dear, you are. Wherever you are today, you're there because you put yourself there. You did it. And you're now just as free, and able, to do something right, something constructive. The answer to a lot of the arguments we use to convince ourselves that we can't change something in our lives, is: Bullshit. In est lingo, the point is that instead of being "at cause" you can be "at effect." This is an example of the rumored "brutality," just dialoguing with people who want to argue for hours that they weren't responsible for whatever has happened to them. [I am aware that this idea and style has ties to Buddhism; however as I said, it is wrong to imagine that est purports to be a religion, it has no religious content.]

If all this sounds like a bunch of elementary first-aid for idiots (or, well, assholes), then I'd have to say ... that's the idea. The concept behind the est training was [and now as the Landmark Forum it is] exactly that. The people who take it of course vary from more to less credible, and more to less sane.

jim

28 Apr 2002

I really enjoyed your spot-on comments in response to the General Counsel of Landmark Education Corporation (LEC). I had the misfortune of attending a LEC guest event, and I've never seen such smug, self-absorbed and self-congratulatory people. Much like the general counselor above, many LEC types

bristle at equating EST to Landmark. Yet I've heard more than one LEC trainer and life-long forum junkie declare--between emotional gasps(!)--that that they've been involved with landmark "for over 20 years!" Clearly if, one does the math about when EST supposedly ended and LEC began, it certainly makes for a very revealing Freudian slip!

I also totally agree with your observation that LEC's true motive is to stifle all comments that it perceives as negative towards LEC. You clearly do listen and edit your webpage when appropriate, yet even this is not enough for the cult-like forum fanatics. The disproportionate hostility really does remind me of the insidious political correctness that is infesting our schools and universities. They are so concerned with teaching our students "what" to think that they've neglected teaching "how" to think. But we should be able to do so on our own, for when one cannot say what is truly on their mind without fear of reprisal from forums freaks or PC Nazis we're no longer a democracy. Thankfully we have people like you.

And as far as disproportionate hostility is concerned: I should know, for I lost a best and beloved friend of over ten years to LEC. In less than 3 days they transformed her into a jargon-babbling forum freak, who, when I presented her with your excellent site and also that of Mr. Rick Ross, she summarily dismissed all negative empirical research, magazine articles and personal anecdotes culled from over the past 30 years as merely rare psychological meltdowns or a conspiracy. She said that I "wasn't ready to 'get it.'" It's funny how all of LEC's personal responsibility mantras turn into finger pointing when they feel everyone isn't being "positive" enough. Sadly, only as long as my friend thought there was a chance that I'd do the forum, she was still in communication. But as soon as I showed her the evidence that I based my nonattendance on and told her to stop talking in the annoying forum jargon, she got cold and uncommunicative. She then told me that people at her forum who'd voiced similar criticism were yelled at, and she said that "everybody hated them." And that last statement was from one of the most loving people I'd ever known, and I'd NEVER EVER heard her use the word "hate" before.

So as you can see from your own experience, LEC seems to engender a very hostile reaction towards any criticism (and sometimes critics) in its converts similar to its own. It's been nearly a year now and I haven't even gotten so much as an e-mail from my old friend. We used to e-mail daily, call weekly and meet at least twice a month. After my experience and reading [Rick Ross's site](#), no one will ever be able to convince me that LEC isn't a cult or at least cult-like, for I agree that it should be avoided--exactly as the cult expert Dr. Margaret Singer in her book [Cult's in Our Midst](#) stated in no uncertain terms. It's expert opinions like hers and Mr. Ross's that carry far more credibility than any dubious forum apologist who may contribute the occasional--between emotional gasps(!)-- pro LEC comments here from time to time. Nevertheless--unlike LEC and Politically Correct Nazis, I defend their right to express their opinions, but I totally condemn their hypocritical efforts to silence those whose

views offend their overly sensitive sensibilities.

Proud to sign my name:

Karl F. Malmberg
Mpls., MN

[more reader comments](#)

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shoehorning

Shoehorning is the process of force-fitting some current affair into one's personal, political, or religious agenda. So-called [psychics](#) frequently shoehorn events to fit vague statements they made in the past. This is an extremely safe procedure, since they can't be proven wrong and many people aren't aware of how easy it is to make something look like confirmation of a claim *after* the fact, especially if you give them wide latitude in making the shoe fit. It is common, for example, for the defenders of such things as the [Bible Code](#) or the "prophecies" of [Nostradamus](#) to shoehorn events to the texts rather than truly predict anything.

After the terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001, fundamentalist Christian evangelists Jerry Falwell and [Pat Robertson](#) shoehorned the events to their agenda. They claimed that "[liberal](#) civil liberties groups, feminists, [homosexuals](#) and [abortion rights](#) supporters bear partial responsibility...because their actions have turned God's anger against America."* According to Falwell, God allowed "the enemies of America...to give us probably what we deserve." Robertson agreed. The American Civil Liberties Union has "got to take a lot of blame for this," said Falwell and Robertson agreed. Federal courts bear part of the blame, too, said Falwell, because they've been "throwing God out of the public square." Also "abortionists have got to bear some burden for this because God will not be mocked," said Falwell and Robertson agreed. [Hear these demonic demonizers talk it out in [mp3](#).]

Neither Falwell nor Robertson has any way of proving any of their claims, as they are by their nature unprovable. But such claims can't be disproved, either. Their purpose is simply to call attention to their [agenda](#) and to get free publicity in the news media. It is a way to take advantage of the fear and anger of people, without fear of being proved to be a liar. It is a hit and hide tactic, as no rebuttal is possible, except to say that if there is an omniscient, all-powerful Being who governs the universe, the likelihood that such a being would be allied with people like [Falwell](#), [Robertson](#) or suicide killers seems absurd on its face and unworthy of serious discussion by people who call themselves human beings. Unless, of course, the Almighty is all-Evil, which is possible according to Falwell's logic; for, otherwise, he and his kind should have been struck dead long ago. At least, in some quarters demonstrating and inciting hatred is not considered good.

After one has been roundly criticized by nearly everyone on the planet for egregious shoehorning of the Falwell/Robertson type, it is typical of the hypocrites to issue denials and claim their statements were taken out of

context. Falwell issued the following statement: "I sincerely regret that comments I made during a long theological discussion on a Christian television program yesterday were taken out of their context and reported, and that my thoughts--reduced to sound bites--have detracted from the spirit of this day of mourning."* Robertson, however, is unrepentant, and has added [Internet pornography](#) to his list of things that have so angered his God that He had to murder thousands of innocent people to express His Almighty displeasure. If we don't change our ways, he says, God is going to kill a lot more of us. Thus, when the carnage mounts in the years ahead as the U.S. and its allies try to eliminate terrorism and the terrorists continue murdering the innocent, we can look back at the dead and say that Pat Robertson predicted it.

See related entries on [confirmation bias](#), [psychic](#) and [retroactive clairvoyance](#).

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retroactive clairvoyance

Retroactive clairvoyance is the ability to use hindsight to predict what happened after it has happened.

Advocates of the prophetic abilities of [Nostradamus](#) are experts at retroactive clairvoyance, as are those who defend the notion that the Bible contains a [prophetic code](#).

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therapy](#)

[retroognition](#)



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retrospective falsification

D.H. Rawcliffe coined this term to refer to a situation in which a story of the extraordinary is told, then retold with embellishments and remodeled with favorable points being emphasized while unfavorable ones are dropped; the distorted version becomes part of memory, fixating conviction in a remarkable tale.

The term is also used in psychology to describe the process used by the paranoid as he recalls selective incidents from the past, reshaping them to fit his present needs.

See **related entries** on [Roswell](#), [psychic detectives](#), and [shoehorning](#).

further reading

[Cameron, Norman and Joseph F. Rychlak. *Personality Development and Psychopathology: A Dynamic Approach*, 2nd edition \(Houghton Mifflin College, 1985\)](#)

Rawcliffe, Donovan Hilton, *Illusions and Delusions of the Supernatural and the Occult; the Psychology of the Occult* (New York: Dover Publications, 1959).





The Princeton Engineering Anomalies Research (PEAR)

The brainchild of Robert G. Jahn, who, in 1979, when he was Dean of the School of Engineering and Applied Science at Princeton University, claimed he wanted “to pursue rigorous scientific study of the interaction of human consciousness with sensitive physical devices, systems, and processes common to contemporary engineering practice.” In short, he wanted to be a [parapsychologist](#) and test [psychokinesis](#). Not so unbelievably, he has found several others at Princeton who also were tired of humdrum work in the humanities, social sciences, engineering, and physics, and have joined the quest to prove that the mind alone can alter matter.

Jahn, six of his associates, and PEAR even have a patent ([US5830064](#)) on an “Apparatus and method for distinguishing events which collectively exceed chance expectations and thereby controlling an output.” This patent is based on their experiments where human operators try to use their minds to influence a variety of mechanical, optical, acoustical, and fluid devices. In short, the PEAR people are doing what many drivers do when they try to use their thoughts to make a red light turn green.

PEAR claims to have attained results that can't be due to chance and "*can only* be attributed to the influence of the human operators" (emphasis added). This is an extraordinary claim, especially coming from such scholars at such a [distinguished institution](#). I would think it would be impossible to rule out all of the following explanations for such statistics not likely due to chance:

1. deliberate cheating
2. errors in calibration
3. unconscious cheating
4. errors in calculation
5. software errors
6. self-deception

Of course, they could be hedging here. After all, fraud, unconscious cheating, errors in calculation, software errors, and self-deception could be considered as “influence of human operators.” In any case, the folks at PEAR are confident that there is only a one in 5,000 chance that the very small effect they have measured--about 0.1 percent--is due to chance. Jahn thinks he has found an [anomaly](#) that indicates that his operators' minds are influencing random systems at an average rate of about once every thousand tries.

One anomaly in the PEAR studies was noted in 1985 by parapsychologist

John Palmer of Durham University, North Carolina. Of the many operators used "operator 10," believed to be a member of the PEAR lab staff, accounted for a disproportionate amount of the success of the experiments. "On the most recently available figures operator 10 has been involved in 15 percent of the 14 million trials, yet contributed a full half of the total excess hits ([McCrone 1994](#)). Also, Stan Jeffers, a physicist at York University, Ontario, has replicated the Jahn experiments but with chance results.

The PEAR people are so convinced of the breakthrough nature of their work that they have incorporated as [Mindsong Inc.](#) They claim their corporation "is developing a range of breakthrough products and research tools based on a provocative new technology -- proprietary microelectronics which are responsive to the inner states of living systems." One of their breakthrough products is some software for \$55.95 "that allows you to influence, with your mind, which of two images will be displayed on your computer screen." They also sell a device for \$425 that lets you do your own testing of mental influence of randomized outputs.

See **related entries** on [confirmation bias](#), [ESP](#), [law of really large numbers](#), [occult statistics](#), [parapsychology](#), [pathological science](#), and the [post hoc fallacy](#).

further reading

- [Psychic ability? The micro-PK experiments](#) by John McCrone
- [Slashdot](#) - News for Nerds, IBM and Mind Input Devices
- [The Evidence for Psychic Functioning: Claims vs. Reality](#) by Ray Hyman
- [Evaluation of Program on Anomalous Mental Phenomena](#) by Ray Hyman
- [STATS - Statistics and the Media](#)
- [The Princeton Engineering Anomalies Research](#)

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 [precognition](#)

[Protocols of the Elders of Zion](#) 

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psi-missing

Psi-missing is an [ad hoc hypothesis](#) invented by parapsychologists to explain away failures to demonstrate [ESP](#). The tests usually involve trying to use ESP to identify various targets, such as [Zener cards](#), pictures, etc. which are hidden from direct view of the subject. The failure to do better than would be expected by chance is explained away as due to unconscious direction to avoid the target. [J.B. Rhine](#) even claimed that persons who didn't like him would *consciously* guess wrong to spite him (Park 2000, 42).

See **related entry** on [parapsychology](#).

further reading

[Park, Robert L. *Voodoo Science: The Road from Foolishness to Fraud* \(Oxford U. Press, 2000\).](#)

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[psi](#)



[psychic](#)

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psychic photography

Whoever thinks the camera doesn't lie doesn't think.

Psychic photography is the alleged production of images on photographic media by [paranormal](#) means such as [psychokinesis](#) or of paranormal phenomena such as [ghosts](#) or [astral bodies](#).

Faked photos, like the [Billy Meier UFO photos and the alien autopsy film](#), or those of [the Cottingly fairies](#), [the Loch Ness monster](#), or [Bigfoot](#), are not considered *psychic* photos. While there are many faked psychic photos, some are simply paranormal interpretations of natural events such as various flaws in camera or film, effects due to various exposures, film-processing errors, lens flares (caused by interreflection between lens surfaces), the camera or lens strap hanging over the lens, effects of the flash reflecting off of mirrors, jewelry, etc., light patterns, polarization, chemical reactions, etcetera (Nickell 1994, 1997).

The first psychic or spirit photographs appeared almost immediately after the first photographs. "As early as 1856, prints of ghostly looking ethereal figures sitting next to the person being photographed were being sold as joke novelties" (Williams 2000, 205). In 1862, William Mumler made a good living in Boston using double exposure to produce photographs with alleged spirits of dead people in them (Williams, 326). Many have followed in Mumler's footsteps.

Some paranormal researchers, apparently unaware of or unwilling to accept that spirit photos are faked or misinterpretations of ordinary phenomena, try to chase down and photograph spirits. Still others claim that they can transfer their thoughts to film directly, a trick known as *thoughtography*.

Thoughtography was made popular by psychiatrist Dr. Jule Eisenbud. He wrote a book about a Chicago bellhop name Ted Serios, who claimed he could make images appear on Polaroid film just by thinking of an image. Since the publication of Eisenbud's *The World of Ted Serios: 'Thoughtographic' Studies of an Extraordinary Mind* (1966), others have claimed to be able to perform this feat. Eisenbud claimed that Serios made his thoughtographs by [psychokinesis](#) and that some of them were instigated during [out-of-body experiences](#). Charlie Reynolds and David Eisendrath, both amateur magicians and professional photographers exposed Serios as a fraud after spending a weekend with him and Eisenbud. Serios claimed he needed a little tube in front of the camera lens to help him concentrate, but he was spotted slipping something into the tube. Most likely it was a picture of

something that the camera would take an image of, but which Serios would claim came from his mind rather than his hand. Their exposé appeared in the October 1967 issue of *Popular Photography*. Serios' psychokinetic powers began to fade after the exposure and he has remained virtually unheard from for the past thirty years.

Many years after Serios faded from the paranormal spotlight, [Uri Geller](#) began doing a trick in which he produced thoughtographs. Geller would leave the lens cap on a 35mm camera and take pictures of his forehead. He claimed the developed film had pictures on it that came directly from his mind. There is no doubt that the images came from Geller's mind, but perhaps they took a more circuitous route than he says. James Randi, magician and debunker of all things paranormal, claims that psychic photography is actually trickery done using a handheld optical device (Randi 1982, 222ff.; 1995, 233) or by taking photos on already exposed film. Intelligent people who are ignorant of photography are susceptible to being duped about psychic photographs and photographs of prehistoric monsters or [fairies](#), as was Sir Arthur Conan Doyle, the creator of Sherlock Holmes.

It does seem strange that spirits and other paranormal forces have the power to appear on film or on [electronic devices](#), or [communicate to a select few in cryptic noises](#) that must be deciphered by [shotgunning](#) in a game of 20 questions. The spirits never simply sit down at the table and say directly what is on their minds. In this they are very much like God. Perhaps this explains our love for *hide and seek*, the children's game that may hold the key to understanding human nature and the great secrets of the universe.

further reading

- [Young Skeptics - Paranormal Photography](#)

[Brugioni, Dino A. Photo Fakery : The History and Techniques of Photographic Deception and Manipulation \(Brasseys Inc., 1999\).](#)

[Nickell, Joe. *Camera Clues: A Handbook of Photographic Investigation* \(University Press of Kentucky, 1994\).](#)

[Nickell, Joe. "Ghostly Photos," *Skeptical Inquirer*, July/August 1997](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(N.Y.: St. Martin's Press, 1995\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\),](#)

[Randi, James. *The Truth about Uri Geller*, \(Buffalo, NY: Prometheus Books, 1982\).](#)

[Williams, William F. editor, *Encyclopedia of Pseudoscience* \(Facts on File, 2000\).](#)

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[thought field therapy](#)

[transcendental meditation](#)



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shotgunning

Shotgunning is a [coldreading](#) trick used by pseudo-[psychics](#) and false [mediums](#). To convince one's mark that one is truly in touch with the other world, one provides a large quantity of information, some of which is bound to seem appropriate. Shotgunning relies on the [Forer effect](#) and [selective thinking](#).

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[Shroud of Turin](#) 

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[House of Horrors -
Dream House Turns
Out to Be Haunted —
Or Was It?](#)

According to a Gallup poll, belief in haunted houses has increased from 29% to 42% over the last decade of the 20th century.

haunted houses

When [Satan](#) or [poltergeists \(ghosts\)](#) take up residence in a house the house is said to be "possessed" or "haunted." While it is quite common for a Catholic priest to bless a house or perform what is called a "[routine exorcism](#)", "[real exorcisms](#)" are not usually done on houses, despite what was depicted in *The Amityville Horror*, a fictional movie based on a true fraud.



It is not clear why Satan or ghosts would confine themselves to quarters, since with all their alleged powers, they could be anywhere or everywhere at any time. If they really wanted to terrorize the neighborhood, they could take turns haunting different houses. In the case of Amityville, the real devils were George and Kathy Lutz who concocted a preposterous story made into a book and a movie, apparently to help them out of a mortgage they couldn't afford and a marriage on the rocks. [Schick & Vaughn, p. 269-270]

Besides the fraudulent cases, there are those cases where otherwise normal people hear strange noises or have visions of dead people or of objects moving with no visible means of locomotion. Hearing strange noises in the night and letting the imagination run wild are quite natural human traits and not very indicative of diabolical or paranormal activity. Likewise for having visions and hallucinations. These are quite natural, even if unusual and infrequent, in people with normal as well as with very active imaginations. [Sagan]

There are "ghostbuster" types who go to allegedly haunted houses for television programs such as *Sightings*. They walk around with some electronic device that picks up electromagnetic fields, and if the needle jumps around they claim they have evidence of poltergeist activity. Why electromagnetism should be identified with ghosts or devils, I have no idea. Just about everything gives off some level of electromagnetic radiation. [Some animals](#) even have the ability to sense electric fields.

There are also a number of cases of reported haunted houses which turn out upon thorough investigation to have been instigated by disturbed teenagers trying to get attention by scaring the devil out of their parents and siblings. [Randi, 1985, 1995]

Haunted houses are great fun at Halloween, though certain devout Christians

find them, along with [witches](#) and goblins, to be diabolical. No one really thinks these Halloween houses are haunted. People go to them because we like to be scared out of our wits. Why? I have no idea. Maybe we think of being scared to death as a way to get close to death without really endangering ourselves. But whatever the reason is, I suspect it is behind the popularity of ghost stories and tales of haunted houses.

Many people report physical changes in haunted places, especially a feeling of a presence accompanied by temperature drop and hearing unaccountable sounds. They are not imagining things. Most hauntings occur in old buildings, which tend to be drafty. Scientists who have investigated haunted places account for both the temperature changes and the sounds by finding sources of the drafts, such as empty spaces behind walls or currents set in motion by low frequency sound waves produced by such mundane objects as an extraction fan.

See **related entries** on [ghosts](#), [exorcisms](#), and [A Skeptic's Halloween Page](#)

further reading

- ["The Haunted Tape Recorder"](#) by Joe Nickell
- ["Caveat Specter"](#) by Tim Madigan
- [The Ghost Research Society](#) - especially for the gullible



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[Sagan, Carl. *The Demon-Haunted World - Science as a Candle in the Dark*, ch. 6 "Hallucinations," \(New York: Random House, 1995\).](#)

[Schick, Theodore, and Lewis Vaughn. *How to Think About Weird Things* \(Mountain View, California: Mayfield Publishing Company, 1995\).](#)



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Eye Movement Desensitization and Reprocessing (EMDR)

....what is new in EMDR does not appear to be helpful, and what is helpful is what we already know about relaxation, education, and psychotherapy.*

EMDR is a therapeutic technique in which the patient moves his or her eyes back and forth, hither and thither, while concentrating on "the problem." The therapist waves a stick or light in front of the patient and the patient is supposed to follow the moving stick or light with his or her eyes. The therapy was discovered by therapist [Dr. Francine Shapiro](#) while on a walk in the park. (Her doctorate was earned at the now defunct and never accredited Professional School of Psychological Studies. Her undergraduate degree is in English literature.*) It is claimed that EMDR can "help" with "phobias, generalized anxiety, paranoid schizophrenia, learning disabilities, eating disorders, substance abuse, and even pathological jealousy" (Lilienfeld 1996), but its main application has been in the treatment of post traumatic stress disorder (PTSD). No one has been able to adequately explain how EMDR is supposed to work. Some think it works something like [acupuncture](#) (which allegedly unblocks [chi](#)): rapid eye movements allegedly unblock "the information-processing system." Some think it works by a sort of ping-pong effect between the right and left sides of the brain, which somehow restructures memory. Or perhaps it works, as one therapist suggested, by the rapid eye movements sending signals to the brain which somehow tame and control the naughty part of the brain which had been causing the psychological problems. I heard the latter explanation on a television news report (December 2, 1994). The television station provided a nice visual of a cut-away head with sparks flying in the brain. The anchorman warned us not to try this at home, that only licensed mental health professionals were qualified to give this kind of therapy. One such professional is [Dr. Ann T. Viviano](#) who thinks EMDR works this way: "The client, by following a moving light with their eyes, activates the healing process of the brain, much as what occurs in sleep. As a result, the painful memories are re-processed and the original beliefs which sprang up from them are eliminated. New, healthy beliefs replace these." The healing occurs by activating the healing process.

Evidence for the effectiveness of EMDR is not much stronger than the theoretical explanations for how EMDR allegedly "works." The evidence has the virtue of being consistent, unlike the theoretical explanations, but it is mainly [anecdotal](#) and very vague. It has not been established beyond a reasonable doubt by any [controlled studies](#) that any positive effects achieved

by an EMDR therapist are not likely due to chance, the [placebo effect](#), patient expectancy, posthypnotic suggestion, other aspects of the treatments besides the eye movement aspect, etc. This is not to say that there have not been controlled studies of EMDR. [Dr. Shapiro cites quite a few, including her own.](#) The reader is invited to look at her summaries of the research and determine for him or herself just how adequate the evidence is in support of EMDR as the main causal agent in recovery from PTSD. The latest study by Wilson, Becker and Tinker is to be published in [The Journal of Consulting and Clinical Psychology](#). It reports a "significant improvement" in PTSD subjects treated with EMDR. The study also provides significant evidence that spontaneous healing cannot account for this improvement. Nevertheless, the study is unlikely to convince critics that EMDR is the main causal agent in measured improvement of PTSD subjects. I suspect that until a study is done which isolates the eye movement part from other aspects of the treatment, critics will not be satisfied. It may well be that those using EMDR are effecting the cures they claim and thereby benefiting many victims of horrible experiences such as rape, war, terrorism, murder or suicide of a loved one, etc. It may well be that those using EMDR are directing their patients to restructure their memories, so that the horrible emotive aspect of an experience is no longer associated with the memory of the experience. But, for now, the question still remains, whether the rapid eye movement part of the treatment is essential. In fact, one of the control studies cited by Shapiro seems counter-indicative:

In a controlled component analysis study of 17 chronic outpatient veterans, using a crossover design, subjects were randomly divided into two EMDR groups, one using eye movement and a control group that used a combination of forced eye fixation, hand taps, and hand waving. Six sessions were administered for a single memory in each condition. Both groups showed significant decreases in self-reported distress, intrusion, and avoidance symptoms ([Pitman et al. 1996](#)).

Maybe hand taps will work just as well as eye movements. According to one EMDR practitioner, Dr. Edward Hume,

...taps to hands, right and left, sounds alternating ear-to-ear, and even alternating movements by the patient can work instead. The key seems to be the alternating stimulation of the two sides of the brain.*

According to Dr. Hume, Shapiro now calls the treatment Reprocessing Therapy and says that eye movements aren't necessary for the treatment! Maybe *none* of these movements are needed to restructure memory. In short, EMDR is a scientifically controversial technique at present. This has not prevented thousands of practitioners from being certificated to practice

EMDR by Shapiro and disciples.

EMDR is controversial and not accepted practice by the American Psychological Association. Advocates disagree, of course, and claim that EMDR is "a widely validated treatment for Post Traumatic Stress Disorder" and other ailments such as "traumatic memories of war, natural disaster, industrial accidents, highway carnage, crime, terrorism, sexual abuse, rape and domestic violence." [David Drehmer, Ph.D., Licensed Clinical Psychologist & Director, Performance Enhancement Laboratory, Associate Professor of Management, DePaul University, personal correspondence.] So far, the validation referred to by Dr. Drehmer is mainly in the form of unconvincing research studies and testimonials by practitioners relating anecdotes and their interpretations of those anecdotes. What is needed is not proof that PTSD subjects are being helped by the treatment, but that it is the eye movement part of the treatment that is essential. Once that is established, a theory as to how it works would be most gratifying. At present, we are being given theories to explain something which we can't yet be sure is even occurring: that eye movements are restructuring memory. If it turns out that that claim is true, I suggest it will have significance far beyond the treatment of PTSD subjects.

Finally, when evidence came in that therapists were getting similar results to standard EMDR with [blind patients](#) whose therapists used tones and hand-snapping instead of finger-wagging, Shapiro softened her stance a bit. She admits that eye movement is not essential to eye movement desensitization processing, and claims attacks on her are *ad hominem* and without merit.

update (Dec 20,2000): [Ranae Johnson](#) has founded the [Rapid Eye Institute](#) on a blueberry farm in Oregon where she teaches Rapid Eye Technology. This amazing new therapy is used "to facilitate releasing and clearing of old programming, opening the way to awareness of our joy and happiness." It helps us "find light and spirituality within us that has always been there." Apparently, people are paying some [\\$2,000 for the training](#) and all the blueberries you can eat.

See related entry on [thought field therapy](#).

further reading

[reader comments](#)

- [Mass Media Bunk: Puff piece on EMDR in Salon.com](#)
- [UA PSYCHOLOGIST LABELS POPULAR TRAUMA THERAPY "PSEUDOSCIENCE"](#)
- ["Can Eye Movements Cure Mental Ailments?"](#) by Gerald M. Rosen, PhD and Jeffrey Lohr, PhD (National Council Against Health Fraud)

- ["New Therapy for Trauma Doubted"](#) by Judy Foreman
- [Mental Help: Procedures to Avoid according to Stephen Barrett, M.D.](#)
- ["Eye Movement Desensitization and Reprocessing: A Controversial Treatment Technique"](#) by Suzanne Hurst and Natasha Milkewicz
- ["Can We Really Tap Our Problems Away? A Critical Analysis of Thought Field Therapy"](#) by Brandon A. Gaudiano and James D. Herbert, *Skeptical Inquirer* July/Aug 2000
- [Dr. Hume's Theory](#)
- [Review of Laurel Parnell's *Transforming Trauma: EMDR The Revolutionary New Therapy for Freeing the Mind, Clearing the Body, and Opening the Heart*](#) by Bryan M. Knight
- [Post-Traumatic Stress Disorder](#)
- [Union offers up more indefensibly wacky informal classes](#) by Roahn Wynar
- [The American Academy of Experts in Traumatic Stress](#)
- [The EMDR Institute](#)

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Lohr JM, Tolin DF, Lilienfeld SO. "Efficacy of Eye Movement Desensitization and Reprocessing: Implications for behavior therapy," *Behavior Therapy* 29:126-153, 1998.

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 [exorcism](#)

[face on mars](#) 

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unicorns

The unicorn is a creature from fables, usually depicted as a white horse with a spiraled horn protruding from its forehead. The unicorn is also a symbol of virginity and in Christian iconography is sometimes used to represent the Virgin Mary. Medieval and Renaissance tapestries often feature the unicorn.



[Cryptozoologists](#) have been alerted to sightings of the unicorn throughout the world, but especially in India, where it was once thought to be a native beast.

further reading

- [mystical unicorns](#)

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reader comments:

EMDR

2 Jan 2000

Dr. Richard Spates, a behavioral psychologist out of Western Michigan University, presented a component study of EMDR at the annual convention of the Association for Behavior Analysis, several years ago. He found that the crucial component for therapeutic success was exposure to the feared stimulus. This is consistent with over 40 years of published research in behavior therapy. The eye movements and all other forms of wiggling are just artifact.

Robert M. Stein, Ph.D.

Center for Neurobehavioral Health, Ltd. Lancaster, PA

1 Sep 1997

I read your material on EMDR questioning its validity and veracity. Whereby your skeptics approach in many situations is refreshing and well needed, in this case you missed the boat. I have been an EMDR therapist for the last four years, following 15 years as a conventionally trained clinician, and I can prove to you it is an remarkably effective clinical tool when correctly incorporated into a diagnostically sound treatment situation.

I have successfully treated 30 engineers from the Long Island Railroad in the last two years suffering from PTSD (Post Traumatic Stress Disorder) resulting from accidents and suicides in front of their trains (which occur every 2 to 4 weeks). In one two three extended sessions (1 1/2 to 2 hours) I have been able to resolve not only acute but chronic trauma, in some cases resulting from up to six such incidents. EMDR is now the accepted mode of psychotherapeutic treatment for PTSD by both the LIRR EAP (Employee Assistance Program) and the union local (Brotherhood of Engineers) and most importantly the engineers themselves. Any I have treated would be available to speak with you.

In addition, through the EMDR HAP (Humanitarian Assistance Program) I have led Pro Bono Trainings of 150 therapists in EMDR in Northern Ireland (in October 1996 and June 1997). So many trauma sufferers have accordingly been helped in such a short time that the Central Government of Northern Ireland and their Department of Health is recommending that EMDR should be available to all its citizens as a treatment for PTSD.

Dr. Bessel Van Der Kolk, a world famous Harvard University psychiatrist and

researcher is conducting pre and post EMDR SPECT SCAN studies with PTSD sufferers and is showing positive changes in brain activity after the treatment.

Bob, I have heard you on the radio and been very impressed by your observations. However, this time your arrow has missed the target completely. I am challenging you to either personally experience EMDR administered by myself or observe me working with a PTSD sufferer of your choice.

If you do not agree to this at a convenient time and place, perhaps you should have your skeptics spotlight turned on yourself!

Will you accept the challenge?

Sincerely,

David Grand

reply:Do you have evidence that the effects you observe are not due to chance, the placebo effect, patient expectancy, posthypnotic suggestion, etc. Have you done any controlled studies that demonstrate that any positive effects achieved by EMDR are not likely due to some other factor?

You mention the successful treatments you have witnessed. I don't doubt your claims. How can you be sure that what you are effecting is due to EMDR?

Even if changes in brain activity are detected, how will you know that those changes were caused by EMDR or that they were significant changes in bringing about a "cure"? Changes in brain activity may indicate that memory has been restructured, but the issue is whether using eye movements, ear or hand taps, etc, had anything to do with it. The other aspects of the therapy may be more significant, particularly any attempt to change the patient's memory or belief system by encouraging association of pleasant or neutral thoughts with a traumatic experience or the dissociation of unpleasant thoughts with a traumatic experience. It may be that EMDR therapy is replacing or disconnecting the emotional memory of a traumatic experience. It may be that EMDR therapy is providing new associations with memory fragments that are now interconnected with emotional memory and that this diminishes the potential stimulation effect of the memory fragment to bring back horrible feelings. But the study which isolates the eye movement, hand taps, etc., from the other aspects of the treatment still needs to be done before we start speculating as to *how* EMDR works. For all we know, EMDR therapists may be doing things very similar to what is done in cognitive therapy, along with their eye movement treatment.

I don't deny that EMDR might in fact be doing all the things you say it does, but until we have more evidence, I will remain skeptical about what is effecting the cure.

2 Sep 1997

I don't know why you believe EMDR has not been validated by controlled studies. Many have been conducted (I can send you reprints) with the major study by Wilson, Becker and Tinker (Eye movement desensitization and reprocessing [EMDR] treatment for psychologically traumatized individuals) published in the Journal of Consulting Psychology in 1995 63(6) pp 928-937. They have also followed up with a larger sample yielding similar results.

People with EMDR expertise have observed that in addition to left/right eye movements, alternating tactile (hand tapping) or auditory (tones) elicit the same rapid reprocessing effect. I have recorded an stereo audiotape which has pleasant music with tones that alternate to the left and right ears. In error, a batch of these tapes were recorded in mono. When I used these defective tapes in session, unbeknownst to me, I received no clinical response. I was baffled and I checked the tapes to discover that the tones were not being delivered bilaterally. Dr. Sandra Shapiro (no relation to Francine Shapiro) a research psychologist in the graduate psych program at Queens College will be using the stereo and mono tapes to conduct research on the validity of EMDR.

You question whether chance, the placebo effect, patient expectancy, posthypnotic suggestion could result in the hundreds of patients who have brought full blown PTSD symptoms into my office and left without them, oftentimes in one or two sessions. These results have never been accomplished in the past, even by chance, the placebo effect, patient expectancy, posthypnotic suggestion. How can that be explained?

Face validity reflects the idea, I saw it with my own eyes. If you saw a man steal a woman's purse in the street five feet away from you, would you need to prove to someone that it happened. You could come up with alternate explanations (someone slipped you LSD at lunch) but what we see in front of our eyes should carry some weight. Again, I invite you to personally experience or observe me work with someone of your choosing. Can seeing something with your own eyes have any validity to you?

David Grand

reply: Shapiro summarizes the Wilson, et. al. study as follows:

S. Wilson, Becker, and Tinker (1995). A controlled study randomly assigned 80 trauma subjects (37 diagnosed with PTSD) to treatment or delayed-treatment EMDR conditions and to one of five trained clinicians. Substantial results were found at 30 and 90 days and 12 months post treatment on the State-Trait Anxiety Inventory, PTSD-Interview, Impact of Event Scale, SCL-90-R, and the SUD and VOC scales. Effects

were equally large whether or not the subject was diagnosed with PTSD.

Apparently not all psychologists agree that either these "substantial results" proved anything significant or that this study demonstrated the significant effectiveness of EMDR. You seem to think that the issue is whether subjects score lower on a stress inventory test or whether subjects report that they are better or whether you perceive them as better after treatment. My questions are not about those issues, but about *what* in the treatment, if anything, is effecting the "cure"? The treatment seems to involve many things, some of which are not new in treatment, and I am waiting for the evidence that controlled studies have isolated the "eye movement desensitization reprocessing" as the new and improved clinical method effecting these successes.

16 Oct 1997

Bob,

I picked up this quote on the internet: It may be a good illustration of the difference between negative bias and skepticism.

Real skeptics would have been curious about unexpected findings, they would not have ignored them and they would not have been distressed by them. About 95% of the people I've encountered who described themselves as skeptics had committed themselves to a viewpoint way too early to claim the title. Real skeptics, people who are able to reserve judgment, are rare.

I am available for an open, honest comprehensive examination of all the data from all sides of this issue. Are you?

David Grand

reply: I take it that your point is that I am not a "real" skeptic because I have come to a conclusion about EMDR (and many other things). Either that, or you are implying that I have ignored the "findings" of therapists such as yourself about the successes treating PTSD subjects and that I have come to my conclusions "way too early." I'll try to clarify my position one more time.

I do not challenge the claim that many people with PTSD are helped significantly by EMDR. I am skeptical of the explanations given for the successes, both theoretical and practical. The theoretical explanations as to how EMDR "might" work are, to be charitable, unconvincing. They amount to little more than contrived speculation with no basis in research

or testing. The practical explanations, however, are what I most take issue with. Let's start at the beginning.

Francine Shapiro announces she has a "new" therapy which can be a tremendous help to millions of people around the globe who suffer emotional distress due to witnessing or experiencing severely disturbing events such as acts of war, violent deaths, etc. She hasn't done any scientific research yet, but she has studies underway. This great new therapy which can help millions is not announced in a reputable scientific journal, backed up by reputable scientific studies. Instead it is announced as an invitation to get in on the ground level. The therapy is for sale. You pay your money to get trained and certified by the founder and you promise not to teach others this latest boon to all humankind. Eventually some studies get done but they are all done by those who have paid their fees and got trained in EMDR. What a shock that all the studies validate the therapy and have not the slightest bit of skepticism in them! Every one of us has to be concerned about selective perception, but researchers who set out to validate what they are doing are especially prone to ignoring counter-evidence because they simply are not looking for it. They don't try to disconfirm a hypothesis but to prove one. If you do not understand why this is not considered good method, then I am probably wasting my time communicating with you. Not only did the cart get put before the horse, but because this therapy has not been explained in detail in reputable scientific journals, independent researchers can't test it. By the time independent researchers get enough information about this therapy to do some meaningful testing, it is already well-established and can point to the fact that it is successful. What it can't point to is evidence that this "new" therapy isn't just an "old" tried and tested therapy wrapped in some new metaphysical swaddling or psychobabble gobbledygook. When one tried to find a controlled study where a group of PTSD patients are given EMDR treatment and others are given exactly the same treatment minus the eye movements, ear taps, or knee taps, one searches in vain. Instead, one sees study after study which show that compared to some other treatment, EMDR is more successful.

I don't know who you got your quote from, but I wonder what kind of skeptic admires a person who claims she can help humankind with her new treatment but won't reveal it unless you pay her to take her course in the treatment and agree not to teach anyone else the method? Does this sound like a "real" scientist to you? Is this the kind of person you admire and wish to follow? I guess so.

24 Nov 1997

I read with interest your correspondence regarding EMDR. You appear to be basing your views on a great deal of misinformation.

1) *EMDR was not offered as a treatment without research. EMDR was announced to the field of psychology with the publication of a controlled study published in the Journal of Traumatic Stress (Shapiro, 1989). The data were subsequently reported in another article in the Journal of Behavior Therapy and Experimental Psychiatry (Shapiro, 1989). At the time of these publications there were few studies of treatments for post traumatic stress disorder (PTSD) and all the other reviewed treatments (Solomon, Gerrity and Muff, 1992) were regarded as marginally effective.*

reply: from [Hearst & Milkewicz](#): "Although her research was encouraging, there were limitations to this study. All of the treatment and assessment was done by Shapiro, hence demand or other non-specific effects could account for part of the treatment effect. Heart rate was only monitored for the treatment group, which may have created a difference in expectations. Furthermore, the diagnostic criteria were unclear and the only standardized measures were self-reports (Greenwald, 1994)."

2) *The instructions regarding the method were not hidden. Both Shapiro articles contained instructions regarding the procedure as it had been developed at that time. At that point it was viewed simplistically and called EMD.*

3) *EMDR was not offered as "therapy for sale" or held hostage. Specialized training was deemed mandatory for client protection when the complexity increased and sufficient feedback was received (see Shapiro, in press, Innovations in Clinical Practice). This need for training was declared ethical and preferable by an independent discussant at an APA symposium (Nurse, 1996). People were asked not to teach others when it was found that participants had taught their versions to lay hypnotists and massage therapists and clients were getting hurt. As a psychological method, EMDR should only be used by a trained and licensed mental health professionals.*

reply: *ibid.* "Soon after EMDR's discovery, Shapiro began holding workshops at hotel conference centers around the country. These workshops included the eye-movement technique, a package of clinical skills, and 7 hands-on practice sessions. Since 1991, the training has been revised to include "Level I Basic" and "Level II Basic". Shapiro's possessiveness of EMDR techniques has been controversial. She insists on personally conducting the workshops and having the trained individuals sign a contract stating that they will not teach anyone else these skills. This restriction has been viewed negatively by many clinicians. For example, Herbert and Meuser (1992) argued that "... such a restriction of information runs counter to the principle of the open and free exchange of ideas among scientists and professionals" (p. 173, as cited in Acierno et al., 1994)."

4) *Validation was not produced because researchers were biased by fee*

payments. Pro bono EMDR training has been provided to all researchers upon request.

reply: I haven't suggested that validation was produced because researchers were paid. In fact, I haven't questioned that EMDR has helped many people. What I have questioned is whether EMDR really is a "new" therapy or just old wine in a new skin. I have no doubt that EMDR works as well as or better than most psychotherapies. I guess I should have asked what other discipline would have granted a doctoral student a Ph.D. on the basis of such work? I have also questioned the validity of all the hype that EMDR is a panacea: "Another controversial point has been the proliferation of EMDR workshops for a wide variety of clinical problems (Marquis, 1991). The list includes agoraphobia and panic disorder, child trauma, learning difficulties, sexual abuse, multiple personality disorder, somatic disorder, obsessive-compulsive disorder, smoking cessation, and eating disorders (Greenwald, 1994)." [ibid.]

5) EMDR has not been inadequately researched. The fourteen controlled studies completed on EMDR as a treatment for PTSD make it the most heavily researched and supported method for the treatment of trauma.

6) The four most recent, rigorously controlled studies consistently indicate that 84-90% of single trauma victims no longer have PTSD after the equivalent of three 90 minute sessions (Marcus, Marquis & Sakai, in press, Psychotherapy; Rothbaum, 1997, Bulletin of the Menninger Clinic; Scheck, Schaeffer & Gillette, in press, Journal of Traumatic Stress; Wilson, Becker & Tinker, 1995 and in press, Journal of Consulting and Clinical Psychology)

Yes, but there are studies which are not so supportive: "However, several studies attempting to replicate earlier findings of EMDR's apparent efficacy failed to do so. Oswald, Anderson, Hagstrom and Berkowitz (1993) reported that the technique was successful with only 3 of 8 people volunteering for treatment to relieve traumatic memories or anxiety related to traumatic memories. Furthermore, the most seriously disturbed participants, whose intrusive memories included scenes of chronic child abuse and being raped at knifepoint, showed the least benefit. In fact, 4 of the 5 hospitalized participants failed to complete the single-session treatment because their memories were too distressing and the EMDR was having no ameliorative effect. The 3 college student participants who reported significant decreases in their SUDS ratings had much milder memories of breaking up with a boyfriend, witnessing a confrontation between family members, and fainting during an operation on an animal." [ibid.]

7) EMDR is not currently viewed as merely a simple eye movement technique. EMDR has been described as an integrated method of treatment that contains a blend of the major psychological orientations (Hyer, 1997; Shapiro, 1995;

Shapiro & Forrest, 1997). The stimulation such as eye movements, handtaps or tones is simply one component of a complex method. Component analyses to consider the weighting of this one factor in the therapy have nothing to do with its overall effectiveness. Since no other peer reviewed studies of PTSD treatments reveal the substantial clinical treatment effects consistently reported in independent controlled studies of EMDR, explanations such as placebo, expectancy, or "old wine in new bottles" is untenable.

reply: Perhaps EMDR therapists could get the same dramatic results without the eye movements, handtaps or tones. If so, that would indicate that it is the other elements of the therapy that are efficacious. But no one has claimed any of those other elements are unique to EMDR.

8) Training is no longer restricted since standards of practice have been established and since it is no longer considered experimental. The EMDR International Association is a non-profit professional organization independently established by EMDR clinicians and researchers (www.emdria.org). It now oversees EMDR training policies worldwide. In addition to multiple training organizations, numerous graduate programs have incorporated EMDR courses.

I hope you will take the initiative in checking the veracity of this information, and informing your readers.

Charles Shapiro

reply: Suffice it to say that studies are ongoing.

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[Expert Confronts
Controversy
Surrounding Virgin
of Guadalupe - Feb
10, 2003](#)

[Myth Versus Miracle -
Debate Rages Over
Likely Canonization
\[of Juan Diego\] by
Kevin Sullivan,
February 5, 2002](#)

Our Lady of Watsonville



Our Lady of Watsonville is a foot-high image of the Virgin Mary seen in the bark of an oak tree in Watsonville, California. Anita Contreras was the first to see Our Lady of Watsonville. On June 17, 1993, the Virgin appeared while Contreras knelt to pray for her children. Since then, thousands of pilgrims have flocked to the site, hoping for a miracle.

Mary is worshipped by many Roman Catholics as the Mother of God. Mexicans have been especially fond of her since her apparent apparition in

1531 to Cuauhtlatoatzin, a Nahuatl peasant and Christian convert who took on the name of [Juan Diego](#). ([Watsonville](#) is about 62% Mexican-American.)

The story of Our Lady of Guadalupe is a bit more dramatic than that of Our

Lady of Watsonville. Legend has it that Juan Diego was a bit of an ascetic mystic, who frequently walked barefoot the 14 miles from his village to church in Tenochtitlan (Mexico City). It was on these walks that he had several visions of the Virgin Mary. He allegedly brought to the bishop his cloak on which an image of the Virgin had been painted (Our Lady of Guadalupe, shown here, is the centerpiece of the Basilica of the Virgin of Guadalupe in Mexico City). Many believe that the painting is of heavenly origin. Skeptics believe it was done by a human artist and passed off as being of miraculous origin in order to win more converts to Christianity.



The name "Guadalupe" is Spanish and is a bit mysterious, since there was no town or shrine near Cuauhtitlan, Juan's village, by that name when the legend began. It is thought that the word derives from a Nahuatl word, *coatlxopeuh*, which supposedly sounds like Guadalupe in Spanish and means something like "one who crushes the serpent." (The serpent can be identified with Satan or with the Aztec serpent-god Quetzalcoatl.) It is also possible that the legend has Juan saying that the Virgin was to be called Our Lady of Guadalupe because the one who invented it was Spanish. The creator of the name may have been intrigued by a statue of Our Lady of Guadalupe in Estremadura, Spain. In any case, it is easy to understand how a mystical Indian could become enchanted with Christianity. Not only did the new religion abound in stories of the miraculous, but the Spanish Christians had put an end to the Aztec empire. The Aztecs had conquered the Nahuatl and perhaps had even sacrificed a few of Juan's relatives to the hungry gods.

The improbability of the story of Juan Diego, his visions, and the miraculous painting has not deterred the faithful from belief. In fact, only a deep [religious faith](#) could account for the continued popularity of [Virgin Mary sightings](#). The skeptic understands the [desire](#) to have a powerful ally in heaven, one who will protect and guide, console, and love you no matter what troubles you have here on earth. The skeptic also understands how easy it is to find [confirmation](#) for almost any belief, if one is very [selective in one's thinking and perception](#). We understand how easy it is to [see things that others do not see](#). Having visions also makes one feel special. Thus, it is not difficult to understand how many people see the Virgin Mary in the clouds, in a tortilla, in a dish of spaghetti, in patterns of light, and in the bark of a tree.

The cult of the Virgin Mary probably has its roots in goddess worship, which has its roots in the desire for a Good Mother, one who loves and nourishes, protects and guides, comforts and encourages. The Virgin is pure, clean, generous with her time, infinitely patient, unlike so many people one meets. She is often the harbinger of peace. The Mother gives birth and through [sympathetic magic](#) brings fertility to the tribe, the crops, etc. The Virgin Mary is the mother of Jesus who is believed by many to be God, making her the mother of God, even though God is eternal and has no beginning. She is also said to have been impregnated by the Holy Spirit, rather than by her husband, Joseph. She is not divine, according to the Catholic Church, but her devotees certainly seem to view the Virgin Mary as a goddess.

A shrine to Our Lady of Watsonville has been set up near the soccer fields and playgrounds of Pinto Lake County Park. Father Roman Bunda celebrated Mass at the site on the 6th anniversary of the Contreras' discovery of the image in the bark. "For those who believe, no explanation is necessary," said Fr. Bunda. "For those who don't believe, no explanation is possible." He's right about the first part.

See **related entries** on [confirmation bias](#), [faith](#), [pareidolia](#), [saint](#), [selective thinking](#), [victim soul](#) and [wishful thinking](#).

further reading

- [Our Lady of Guadalupe](#)
- [Retired abbot casts doubt on Mexico's revered Catholic figure](#)
- [Appearances of the Virgin Mary in the 20th century](#)
- [Who is Mary?](#)

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reader comments:

facilitated communication

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I am a psychologist in NY. Graduate of SUNY Buffalo. I've become more skeptical over the years. I always used to enjoy Mark Crystal, James Randi and others debunking persons with claimed psi powers in the next lab.

I co-ordinate psychologists who work with the mentally retarded. I am in a battle trying bring some sanity to the apostles of Facilitated Communication, and other crazy fads....I often don't feel I am articulate or persuasive enough. At the same time, I keep trying to come up with treatments that can be empirically validated, primarily behavioral.

Interestingly, the psychologists I work with are the most skeptical and resourceful clinicians working at the agency.

The power of these people is scary.

Keep up the good work. . .

2 Oct 1996

You said of Facilitated Communication: "When facilitators have been tested under controlled conditions they fail miserably."

See Michael J. Salomon Weiss, Sheldon H. Wagner, and Margaret L. Bauman, "A Validated Case Study of Facilitated Communication," Mental Retardation Vol. 34, No. 4, 220-230, August 1996.

Extract: "The experimenter in the protocol (the first author) had been a consultant for Kenny's school program for approximately one year prior to Kenny's introduction to facilitated communication. It is noteworthy that the experimenter was originally quite skeptical about facilitated communication, as can be seen from the following newspaper account: Michael Weiss, a clinical psychologist who has worked with developmentally disabled children in New Bedford, is also concerned [about facilitated communication]. "There's a rich tradition in how we judge whether something is true.... It gets reviewed by peers and has to pass a certain standard," he said. "What I'm

unnerved about with the facilitated communication people is that there's almost a refusal to adhere to this standard." Asked why he thinks Dr. Biklen and company won't do such studies, Dr. Weiss replied, "What rings true in my ears is that the thing is a bloody hoax. (Experimental technique, 1992)" Weiss then went on to test it, did a study, and got positive results.

" Abstract: The case of a 13-year-old boy with autism, severe mental retardation, and a seizure disorder who was able to demonstrate valid facilitated communication was described. In three independent trials, short stories were presented to him, followed by validation test procedures with an uninformed facilitator providing physical support to the subject's arm. In Trials 1 and 3, several specific answers were provided that clearly indicated that the young man, not the uninformed facilitator, was the source of the information. Moreover, some responses seemed to imply that the subject was employing simple inferential and abstract reasoning. This case study adds to the small, but growing number of demonstrations that facilitated communication can sometimes be a valid method for at least some individuals with developmental disabilities."

There's also a larger study in the same issue of Mental Retardation, also recording positive findings.

*Well; does that count as an instance of a facilitator tested under controlled conditions (*where others beside the defenders of FC have set up the experiments*) who did not fail miserably? If not, what would? If so, does that open a crack to make the arguments?*

The basic point I'm trying to get across is that yes, if you put forward a proposition that goes against the accepted laws of physics then you're probably wrong. However, if you put forward a proposition that goes against the accepted laws of psychology you'd have to write them first.

Remember, we are talking about people who refer to FC as "...an inappropriate challenge to professional belief systems.." (Howard Shane). And those professional belief systems are pretty rigid. If you're not a member of one of those professions, FC doesn't sound particularly out of line.

Here's one basic starter, from Australia.

"A Rationale for the Use of Facilitated Communication Training

1. Many people with severe communication impairment (SCI) know more words than they are able to say.

2 People with SCI who know more words than they are able to say may be able to expand their expressive communication by using alternative and augmentative communication (AAC)

strategies.

3. Many people with SCI have hand function impairments which affect their ability to write or use manual sign or make selections from communication displays.

4. Some people with SCI and impaired hand function can use AAC equipment which does not require hand skills to expand their expressive communication. Some people with SCI and impaired hand function cannot use such equipment, either for practical reasons (because they walk, for example, and need less bulky devices) or because of the nature of their neuromotor impairments (because, for example, they have impulsivity).

5. People with SCI and hand function impairments who cannot use other AAC strategies may be able to use their hands to access communication aids if their hand function impairments are remedied either temporarily or permanently.

6 For some people with SCI, facilitation can provide a temporary remedy for hand function impairments affecting communication aid use, and when used as part of a structured teaching program may result in a permanent improvement in hand function."

Not exactly witchcraft.

Chris Borthwick

reply: No, not witchcraft. I don't deny that many people are helped by facilitators. I mentioned above that I have had students who use facilitators. I also noted that it is well-known that there is no necessary connection between a physical handicap and mental ability. It is not my intention to suggest a priori that no research in this area will prove fruitful. I think, however, that this is an area where self-deception and wishful thinking can be especially invasive. What parent would not want their child to be "normal?" I believe it is imperative that those doing research in this area propose a testable theory of FC. Someone needs to address the issue of *how* FC occurs, especially since it seems that physical communication between patient and facilitator cannot be happening in many "documented" cases of FC. It is not enough for science to provide a few case histories, or even a grand study indicating statistical improbability of chance explaining away one's therapeutic successes. An explanatory mechanism is needed. Until then, FC studies may not be witchcraft, but they cannot be considered much more scientific than, say, testimonials regarding golf aids or weight reducing programs.



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[Fairy Tales \(in Santa Cruz\) By Rebecca Patt](#)

fairies

Fairies are mythical beings of folklore and romance. They are often depicted as diminutive winged humans with magical powers. The tooth fairy exchanges presents, usually coins, for teeth left out or under one's pillow at night. Fairy godmothers are protective beings, like guardian [angels](#).

Fairies should not be confused with *gnomes*, which are also mythical diminutive humans but are deformed and live underground. *Pixies*, on the other hand, might be considered a type of fairy known for their cheerful nature and playful mischievousness. An *elf* might be thought of as a big pixie, often depicted as a mischievous dwarf, such as the Irish leprechaun known for his pranks but also believed to know where treasure is hidden. Elves are sometimes depicted as helpers of magicians, e.g., [Santa's](#) helpers.

Belief in such mythical beings seems common in rural peoples around the world. Occasionally, a city slicker who should know better is duped into believing in fairies. An infamous example of such a dupe is Sir Arthur Conan Doyle who was conned by a couple of schoolgirls and their amateur photographs of paper fairies (known as the "Cottingley Fairies") taken in their Yorkshire garden. The faked photos are reminiscent of the most famous [Loch Ness Monster](#) picture, faked in a similar fashion by Ian Wetherell, as are many UFO photos, e.g., those of [Billy Meier](#). Doyle even published a book on the fairies: *The Coming of the Fairies*. He and a [theosophist](#) named Edward Gardner published the photos taken by sixteen year old Elsie Wright of her ten year old cousin, Frances Griffiths, with Elsie's cutouts of fairies. Doyle and Gardner proclaimed that the photos were not fakes, but the real thing. The real howler, though, was the debate which ensued over whether these were photos of real fairies or [psychic photographs](#) which recorded the thoughts of the girls projected onto the film! Doyle, like many who have come before and after him, longed for any proof of a world beyond the material world. His desire to find support for [spiritualism](#) led him to a number of delusions. Even so, he wrote great detective stories and in Sherlock Holmes created a mythical being much more interesting than any fairy, even if he didn't know the difference between induction and deduction.



[Paramount Pictures](#) has made a movie about Griffiths and Wright called **Fairytale: A True Story**. Harvey Keitel plays Houdini and Peter O'Toole

plays Sir Arthur Conan Doyle.

further reading

[reader comments](#)

- [Fairy-related Links](#)
- [The Tooth Fairy](#) by Adrian Barnett
- [The case of the Cottingley fairies](#) by Joe Cooper
- [The Case of the Cottingley Fairies](#) by James Randi
- [The Debunking of Three Hoaxes](#) by James Opie

[Bourke, Angela. *The Burning of Bridget Cleary* \(Pimlico, 1999\).](#)

Cooper, Joe. "Cottingley: At Last the Truth," *The Unexplained*, No. 117, pp. 2338-40, 1982.

[Gardner, Martin. *Science: Good, Bad and Bogus* \(Buffalo, N.Y.: Prometheus Books, 1981\), ch. 9.](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural* \(St. Martins's Press, 1995\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\).](#)

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reader comments:

fairies

28 Jan 2000

I was just perusing your article "Fairies." And no, I will not berate you for your disbelief. I think we are all entitled to our own opinions- so long as we don't thrust them upon others, that is. What I wished to say was that I have gotten the impression that your arguments are decidedly one- sided.

reply: You are very perceptive.

You focus on the Cottingley Glen incident- was this your only source? How can you base total disbelief on one hoax? (Yes, I do admit that was what this was.)

reply: The Cottingley Fairies are mentioned to (a) ward off the critics who would point out that since a great writer like Conan Doyle believed in fairies, there must be something to it; and (b) to exemplify how even intelligent people can be deluded about the paranormal and occult. The disbelief in fairies is based on the lack of any good reason to believe in such creatures.

Would it not be more to your advantage to look into sources which discuss the reality behind faeries (yes, that is how many of us spell it), as you seem to believe that we all think faeries are tiny winged things like Tinkerbell? Such is not the case. I'm just suggesting that perhaps you need to broaden your spectrum before you dismiss something as a "dupe," as you so eloquently phrase it.

reply: And whom might these sources be? You had an opportunity to broaden my and my readers' "spectrum" but you didn't do it. Why?

I found your whole style to be rather offensive- you seem to be saying that anyone who believes in anything that can't be scientifically analyzed must be an absolute moron. Perhaps you ought to edit this. I respect your opinions, but maybe you ought to be more careful about offending others. To disbelieve is one thing; to scoff and mock is another. You appear to lack a total faith in everything. Things are not always scientific. There are many things out there which cannot be explained. While yes, some may be fakes, but others- well, how can you be so sure? I shall leave you alone now, before you start throwing a self- righteous fit over my liberal (what a concept!) views. All I shall say is that I do feel sorry for you. You must lead an extremely empty life. Except when

you're mocking and dashing the views and beliefs of others, that is.

Wendy Davis

reply: Thanks for not being offensive and not scoffing or mocking me. No doubt you have convinced many thoughtful people of your views by your perspicacious and detailed evidence.

27 Aug 1999

I really enjoy your website. It's extremely clear and well-written. I'm poking through the cryptozoology site today and found your brief entry on Fairies. While its a very clear explanation & delineation of modern concepts, it neglects the historical aspect found in the Arthurian cycle, wherein fairies and other so-called Green People are roughly the same size as humans, living in what we might call "another dimension" out of which they can step at will, and into which they can "abduct" or lure the unwary. This other dimension looks like, yet doesn't look like, its more 3-dimensional earthly surroundings.

I'm by no means a scholar and have only the armchair critic's interest in collecting this sort of information, so I'm afraid I can't refer you to sources beyond the Mabinogian and similar writings. I simply find it interesting that (1) these medieval (and possibly earlier folkloric) accounts are remarkably similar to modern alien abductions, minus the anal probing, and (2) these creatures were diminutized over time, perhaps by the Christians in their attempt to snuff out and render evil or irrelevant the religions and superstitions of native Europeans. As to (1), I don't assert that this parallel implies some inherent objective truthfulness, but rather some impulse that persists through time and across cultures to explain the initially unexplainable. I think of changelings as a way to describe mental retardation or other diseases, or even SIDS. Similarly, abductions by the Tuatha de Daanan or X-Files aliens can be some sort of mental defense to protect against recognizing some other event or activity that has, similarly, rendered a person disoriented in some deep way.

As for (2), well, I think enough's been said about that. Sorry to ramble on, and no need to respond. I know you have enough to do, and this email is in no way a criticism, merely a suggestion of some tiny tangent that can be expanded upon with interesting implications.

Jim Lancaster

reply: I think I'll leave the expansion to someone else, thanks, but if big fairies became wee people over time, it may have had something to do with trying to explain why they were so hard to see and how they could get into so much mischief, and how they were, in many ways, just like children. Christians have been accused of many things, but this is the first time I've ever heard them being accused of diminutizing fairies.

26 May 1996

While I was doing a little "surfing" on the Net, I came across your homepage here. Wow... aren't you the skeptic.

You definately have a negative outlook on just about everything... or that's how the text files seem to point. I'm not trying to be insulting, by the way. But I mean, you have to believe in SOME things. If life was as black and white as a heavy skeptic might want to believe, life would be very cold.

reply: Actually, we skeptics think more in terms of shades of gray, purple, blue, red, etc. Sometimes its hot, sometimes it's pretty cool, and, yes, sometimes it's very cold.

Tell you what... I have a small story for you. Even I question my sanity when I tell people about it, but I KNOW it happened. Here goes...

When I was about 10 (roughly), I woke up from my sleep for no reason. I heard nothing, but I looked up towards my window. I was quite awake at this point, and saw a fairy! She was at the top of my window between the ends of the top of the curtains. She was basically floating there. You know the fairy that flies around in Walt Disney cartoons? That's close to what I saw! When the fairy looked down and noticed I saw her, she got a surprised expression, covered her mouth with her hand, kinda tucked in her body like a jerky motion, and then vanished.

You probably think I'm just making this up, but I DID see this.

reply: I may be a skeptic but your story just rings with verisimilitude. How could I doubt it?

Just TRY to believe that life is more than logical.

John \"Magnus\" Altinger

reply: No problem. You and your fairy are proof that life is more than logical.



[fairies](#)

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faith

Faith is a non-rational belief in some proposition. A non-rational belief is one which is contrary to the sum of evidence for that belief. A belief is contrary to the sum of evidence for a belief if there is overwhelming evidence against the belief, e.g., that the earth is flat, hollow or is the center of the universe. A belief is also contrary to the sum of evidence if the evidence seems equal both for and against the belief, yet one commits to one of two or more equally supported propositions.

A common misconception regarding faith--or perhaps it is an intentional attempt at disinformation and obscurantism--is made by Christian apologists who make claims such as the following:

A statement like "There is no God, and there can't be a god; everything evolved from purely natural processes" cannot be supported by the scientific method and is a statement of faith, not science (Richard Spencer, Ph.D., associate professor of electrical and computer engineering at UC Davis and faculty adviser to the Christian Student Union. Quoted in *The Davis Enterprise*, Jan. 22, 1999).

The error or deception here is to imply that anything that is not a scientific statement, i.e., one supported by evidence marshaled forth the way scientists do in support of their scientific claims, is a matter of faith. To use 'faith' in such a broad way is to strip it of any theological significance the term might otherwise have.

Such a conception of faith treats belief in all non-empirical statements as acts of faith. Thus, belief in the external world, belief in the law of causality, or even fundamental principles of logic such as the principle of contradiction or the law of the excluded middle, would be acts of faith on this view. There seems to be something profoundly deceptive and misleading about lumping together as acts of faith such things as belief in the Virgin birth and belief in the existence of an external world or in the principle of contradiction. Such a view trivializes religious faith by putting superstitions, fairy tales, and delusions of all varieties, and all non-empirical claims in the same category as religious faith.

an erroneous view of faith

If we examine Dr. Spencer's claims, this should become obvious. He claims that the statement 'there is no God and there can't be a god; everything evolved from purely natural processes' is a statement of faith. First, we must

note that there are *three* distinct statements here. One, 'there is no God'. Two, 'there can't be a god'. And three, 'everything evolved from purely natural processes'. Dr. Spencer implies that each of these claims is on par with such statements as 'there is a God', 'Jesus Christ is the Lord and Savior', 'Jesus' mother was a virgin', 'a piece of bread may have the substance of Jesus Christ's physical body and blood', 'God is one being comprised of three persons', etc.

The statement 'there cannot be a god' is clearly not an empirical statement, but a conceptual one. Anyone who would make such a claim would make it by arguing that a particular concept of god contains contradictions, and so is meaningless. For example, to believe that 'some squares are circular' seems to be a logical contradiction. Circles and squares are defined so as to imply that circles can't be square and squares can't be circles. James Rachels, for one, has argued that god is impossible, but at best his argument shows that the concepts of an all-powerful God and one who demands worship from His creations are contradictory. The concept of worship, Rachels argues, is inconsistent with the traditional Judeo-Christian God concept.

Rachels makes an argument. Some find it convincing; others don't. But it seems that his belief is not an act of faith in the same sense that it is an act of faith to believe in the Incarnation, the Trinity, [transubstantiation](#), or the Virgin Birth. The first three articles of faith seem to be on par with believing in round squares; for, they require belief in logical contradictions. Virgin births we now know are possible, but the technology for the implantation of fertilized eggs did not exist two thousand years ago. But the belief in the Virgin birth involves belief that God miraculously impregnated Mary with Himself. Such a belief seems also to defy logic. All arguments regarding these articles of faith are quite distinct from Rachel's argument. To defend these articles of faith, the best one can hope for is to show that they cannot be shown to be impossible. However, the consequence of arguing that logical contradictions may nevertheless be true, seems undesirable. Such a defense requires the abandonment of the very logical principles required to make any argument and is therefore self-annihilating. The fact that arguments such as Rachel's and those defending articles of religious faith are not empirical or resolvable by scientific methods hardly makes them equally matters of faith.

The statement 'there is no God' is quite different from the claim that there can't be a god. The latter makes a claim regarding possibility; the former is an actuality claim. I doubt that there are many theologians or Christian apologists who would claim that all their faith amounts to is a belief in the *possibility* of this or that. One can believe there is no God because there can't be a god, but one might also *disbelieve* in God while admitting the *possibility* of the Judeo-Christian God. Disbelief in God is analogous to disbelief in Bigfoot, the Loch Ness Monster, Santa Claus and the Easter Bunny. Yet, those who believe in Bigfoot and Nessie, for example, aren't known for claiming they believe out of faith. To say you have faith in Bigfoot or faith in Nessie sounds ludicrous. Believers in Bigfoot think there is good evidence for

their belief. Disbelievers argue that the evidence is not strong at all and does not deserve assent to the proposition that Bigfoot exists. Disbelievers in Bigfoot do not disbelieve as an act of faith, but because the evidence is not persuasive. Belief in God, on the other hand, could be either an act of faith or a belief based on conclusions from evidence and argument. If the theistic belief is an act of faith then the one holding the belief either thinks the evidence against belief outweighs or equals the evidence for belief, or the belief is held without regard for evidence at all. Otherwise, the belief is not an act of faith, but of belief that the evidence is stronger for belief than against.

naturalism

Finally, the claim 'everything evolved from natural processes' is not necessarily an act of faith. If the only alternatives are that everything evolved from either supernatural or natural forces, and one is unconvinced by the arguments and evidence presented by those who believe in supernatural forces, then logically, the only reasonable belief is that everything evolved from natural forces. Only if the evidence supporting a supernatural being were superior or equal to the evidence and arguments against such a belief, would belief that everything evolved from natural forces be a matter of faith.

Those of us who are atheists, and believe that everything evolved from natural forces, nearly universally maintain that theists and supernaturalists have a very weak case for their belief, weaker even than the case for Bigfoot, Nessie or Santa Claus. Thus, our disbelief is not an act of faith, and therefore, not non-rational as are those of theists and Christian apologists. However, if Christian apologists insist on claiming that their version of Christianity and the rejections of their views are equally acts of faith, I will insist that the apologists have a *non-rational* faith, while their opponents have a *rational* faith. Though I think it would be less dishonest and less misleading to admit that atheists and naturalists do not base their beliefs on *faith* in any sense close to that of *religious faith*.

See related entries on [atheism](#), [God](#), and [theism](#).

further reading

[reader comments](#)

- ["Faith"](#) - The Freethought Zone
- ["Faith"](#) in the Catholic Encyclopedia

[Thomas Aquinas, *Summa contra Gentiles*, translated, with an introduction and notes by Anton C. Pegis \(University of Notre Dame press, 1997\).](#)

[Rachels, James. "God and Human Attitudes," in *Religious Studies* 7 \(1971\).](#)

Reprinted in *Philosophy and the Human Condition*, 2nd. ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1989), pp. 509-518.

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Last updated 03/24/02



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[fakir](#)

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reader comments:

faith

19 May 1999

While perusing your marvelous website--many, many thanks, by the way--I came across this recent segment:

'Dr. Sloan and his team acknowledge that faith can help patients deal with illness, but caution that "linking religious activities and better health can be harmful to patients, who already must confront age-old folk wisdom that illness is due to their own moral failure.'" I have long been curious about the true health value of faith.

So I thought you might be interested in the following:

Two quoted sections from the Skeptic Magazine Hotline. The first is part of a response by Steven B. Harris, M.D., a member of the Skeptics Society advisory board, to an article by Michael Shermer on the death of Susan Strasberg and her use of "alternative" medicine. Dr. Harris deals regularly with cancer patients. His position seems to reflect an increasingly accepted (by non believers) view of on the role of faith. .

"...Breast cancer is a long, drawn-out thing. You can spend 5 or 10 or 15 years in a constant agony of anxiety about having a fatal disease, or you can find a lie and be happy for the same time. Which is better? That's the conundrum facing all skeptics. Lies allay anxiety-- and too much anxiety, particularly about the future and death and pain, which are inevitable, is one of the things that makes life not worth living. Skepticism aims to find out the truth in all things. The lie which skeptics tell themselves is that the truth always, in the end, makes things better. Always. That lie is to relieve the anxiety THEY have that sometimes, occasionally, what they're doing AS skeptics, is not the kindest thing they can be doing. It's recursive and VERY ironic."

That was the setup for this--to me--startling view from Dr. William Jarvis, who Shermer calls "arguably one of the world's leading experts on alternative medicine (from a scientific perspective)". Dr. Jarvis was responding to a longer version of the above quote.

"The idea that cancer patients who delude themselves by attending miracle healers (whether of the psychic variety or otherwise) have a better quality of life than those who submit to standard therapies with their side-effects is not doubted by many (most?) in the medical community. However, the only test of

the idea that I am aware of, found this not to be the case.

Cassileth et al obtained the cooperation of Virginia Livingston-Wheeler, MD, who operated a fringe cancer clinic in San Diego circa 1990. Seventy-eight pairs of patients were matched according to sex, race, age, diagnosis, and time from the diagnosis of metastatic or recurrent disease, who were enrolled over a period of 3.5 years. All patients were followed until death. Livingston-Wheeler patients were given her dubious "vaccine," BCG injections, vegetarian diet, and coffee enemas. They All but six of the control patients were on chemotherapy. The patients' quality of life was assessed using the Functional Living Index-Cancer. Researchers expected to find a higher quality of life among the optimistic, deluded VLW patients, but it didn't turn out that way. The VLW patients scored consistently lower than those treated by standard methods. (New Engl J Med, 1991;324:1180-5).

This surprising finding was consistent with two other studies that demonstrated how faulty subjective experience can be when attempting to evaluate a cancer treatment program. The Bristol Cancer Self-help Center (BCHC) in the UK offered patients a stringent diet (partially raw and partially cooked veggies, with soya proteins, and pulses), active participation in the healing process, positive thinking, etc. The program directors and staff were so certain that their patients were doing much better than patients treated in the standard way that they asked a team of doctors and researchers to test their program. This was done, and much to the shock and chagrin of the BCHC people, the finding were that metastasis-free survival was significantly poorer among the BCHC patients, and survival of relapsed patients was significantly inferior as well. (The Lancet, 1990; 336:606-10.)

Bernie Siegel, MD, has made himself into a New Age guru by touting the superiority of his ECaPs (Exceptional Cancer Patients). He has written several books, and appeared on the media touting the idea that optimism, love, and social support are life-enhancing. Nevertheless, a ten-year follow-up of the ECaPs program found no benefit. (J Clin Oncology 1993;11:66-9)

reply: One added benefit of doing the book/talkshow/lecture circuit: you don't have to face those dying patients every day.

It is interesting that even health professionals with standard training can be fooled by the subjective clinical experience. This was documented by Roberts, et al, who looked at five different clinical procedures that had come into use based upon clinical reports, but which were later found to be ineffective when subjected to randomize, blinded clinical trials (Clinical Psychology Reviews, 1993;13:375-91). This review documented the deceptive clinical illusions that physicians can experience who rely upon clinical experience without blinded, objective testing.

Alternativist physicians have the same vulnerability, plus the added problems

imposed by their nonconformist personalities. They seem to know about the possibilities placebo effects, and other dynamics that can create clinical illusions on an intellectual level, but seem incapable of sorting these factors out experientially.

Or, like Herbert Benson, they don't think it is important to sort these things out because they believe that belief per se is the most powerful healing factor.

(I have accused Benson of having bumped his head on the cornerstone of the Mother Church of Christian Science there in Boston where he works). The "mind over matter" beliefs of the proponents of positive thinking are very often at the root of alternativism.

I believe these people, both patients and practitioners, are wishful thinkers who, as the old song says, "accentuate the positive, eliminate the negative, latch on to the affirmative, and don't mess with Mr. In-Between." They hate science because it attacks their delusions."

John H. Mazetier, Jr.

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fakir

A fakir is an initiate in a mendicant Sufi order. The word derives from the Arab word for poverty. By extension, the word is used to refer to ascetic *Indian* holy men (*sadhus*). The term is also used, however, to refer to itinerant Indian conjurers and alleged god-men who travel from village to village and perform "[miracles](#)" such as materializing *vibhuti* (holy ash) or jewelry. They do other [conjuring](#) stunts such as walking on hot coals, laying on a bed of nails, [eating fire](#), sticking their hands in boiling 'oil', piercing their faces with long needles, putting large hooks through the flesh of their backs attached to heavy objects which they pull. Some conjurers are even said to [levitate](#) or to have performed the famous [Indian rope trick](#). Others are said to have been buried alive for months and lived to tell about it. Some cut off their tongues and restore them. Others can make fire materialize out of nothing. The conjurers sometimes have accomplices and they pretend to do [exorcisms](#) or other strange feats. After each performance, they pass the hat, collect what they can, and move on to the next village.

Some conjurers become very famous and are considered to be god-men, such as [Sai Baba](#).

[B Premanand](#) of Indian Skeptics has spent over fifty years exposing the tricks of the god-men. His method is simple. He demonstrates how the "miracles" of the fakirs are done by performing them himself. Abraham Kovoov and Prabir Ghosh of the Indian Rationalist Association have carried on the work of Premanand in exposing the deception of Sai Baba and those of his ilk, [astrologers](#), [psychics](#) and [clairvoyants](#). They were featured in the British documentary "Guru Busters" (Equinox)*, which followed Rationalists around India as they demonstrated how the god-men perform their "miracles" without doing anything supernatural.

The Discovery Channel's "Science Mysteries" series included an episode (October 20, 2001) entitled "Physical Feats" which was in part a rehash of "Guru Busters." The cameras followed members of the Indian Rationalist Association (IRA) as they went from village to village pretending to be fakirs. The IRA considers the god-men to be frauds who use trickery, legerdemain, [conjuring](#), deceit, and other unfair means of convincing ignorant villagers that they possess miraculous powers. The IRA [firewalk](#) and explain anyone can do it without a need for supernatural intervention. They walk on glass, lay on nails, pull cars with hooks poked through the flesh on their backs, jab long needles through their cheeks and tongues, etc. The goal of the IRA is to debunk the god-men and reduce superstition among their countrymen and women. They obviously have a long way to go, as is evidenced by the

monkey-man hysteria that gripped New Delhi in the spring of 2001. Witnesses reported to the mass media that they had seen "a giant ape that could jump 40 feet into the air and fly through windows."* Other claimed they saw a 4-foot monkey that turned into a cat. Mass hysteria led to deserted streets and panic. One pregnant woman fell down a staircase and died as a result of trying to escape from the monkey-man. It was all a hoax that played upon the religious superstitions of the people. One commentator put it bluntly:

had we not been a nation nurtured on Hindu epics to become Hanuman worshippers, most people would have laughed at the very idea of a monkey-man and would have considered the so-called "witnesses" liars or demented maniacs from the outset, instead of waiting for the scientific community to debunk this hoax in its own, soft way, and lay it to rest. For, when it comes to religion the first "principle" that is taught by preachers to believers is that of blind acceptance. One may not question any religious dogma if he/she is a believer, and, he/she must necessarily accept the dogma/doctrine *in toto*....([Mehul Kamdar](#))

further reading

- [Indian Skeptic](#)
- [God-men](#) and [Firewalking](#) and [Skeptics give Gurus Curry](#) by Harry Edwards
- [Guru Busters](#)
- [Religious gullibility and the monkey man hoax](#) - Mehul Kamdar
- ['Monkey man' fears rampant in New Delhi](#) - CNN.com
- [Mysterious 'man-monkey' strikes Delhi](#) - BBC.com
- ['Monkey man' does not exist: Delhi police](#) Basharat Peer in New Delhi
- [Show me the monkey!](#) - Salon.com
- [Monkey-man Madness](#) - Strange magazine

***note: Equinox follows the activities of the Indian Rationalist Association in their grass roots campaign to debunk India's "God-men". They hold vast public meetings to expose the fraudulent tricks employed by local medicine men and gurus. The Indian Rationalist Association demonstrates the science behind a wide range of miracles seen everyday in India such as producing holy ashes, producing fire by mental power, inserting needles through the tongue, being buried head-first in sand and walking through hot embers. They even try to go one better, with volunteers pulling a jeep with hooks threaded through the skin on their backs, instead of a wooden chariot. In a disturbing section of the film, they shame a medicine man who has been selling a 'magic anti-cobra potion' to save a dog from a cobra bite. The Indian Rationalist**

Association hopes to prove that scientific rationalism is a better route to follow to escape from disease and poverty.*

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[faith](#)

[false memory](#)



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the Indian rope trick

This alleged trick, reportedly witnessed by thousands of people, involves an Indian [fakir](#) who throws a rope to the sky, but the rope does not fall back to the ground. Instead it mysteriously rises until the top of it disappears into thin air, the darkness, the mist, whatever. Now, that would be trick enough for most people, but this one allegedly goes on. A young boy climbs the unsupported rope, which miraculously supports him until he disappears into thin air, the mist, the darkness, whatever. That, too, would be trick enough for most of us, but this one continues. The fakir then pulls out a knife, sword, scimitar, whatever and climbs the rope until he, too, disappears into thin air, mist, darkness, whatever. Again, this would a great trick even if it stopped here. But, no. It continues.

Body parts fall from the sky onto the ground, into a basket next to the base of the rope, whatever. Now, that's quite common in some neighborhoods and would not count as much of a trick. But the fakir allegedly then slides down the rope and empties the basket, throws a cloth over the scattered body parts, whatever, and the boy miraculously reappears with all his parts in the right places. That would be a great trick, especially since it must be done in the open without the use of engineers, technicians, electronics, satellite feeds, television cameras, whatever.

Actually, the only thing needed for this trick is human gullibility. According to Peter Lamont, a researcher at the University of Edinburgh and a former president of the Magic Circle in Edinburgh, the Indian rope trick was a hoax played by the *Chicago Tribune* in 1890. Lamont claims the newspaper was trying to increase circulation by publishing this ridiculous story as if there were eyewitnesses to the event. The *Tribune* admitted the hoax some four months later, expressing some astonishment that so many people believed it was a true story. After all, they reasoned, the byline was "Fred S. Ellmore." They hadn't reckoned that their audience, many of whom believed in [miracles](#) and [phrenology](#) and other weird things, wouldn't find this story that hard to accept.

Lamont has been researching the Indian rope trick for years. At one point he and Richard Wiseman wrote in *Nature* that the results of their investigation supported the notion that belief in the trick was due to the 'exaggeration effect': the greater the time between seeing something and telling a story about it, the more a person tends to exaggerate the impressiveness of the event.*

Of course, there are other possibilities, most of which have been offered in an attempt to explain *how* the trick is done: [mass hypnosis](#), [levitation](#), a magic

trick involving an invisible rope hanging above which the thrown rope hooks onto somehow, shaved monkey limbs for body parts, twins, whatever. Of the various explanations, the hoax seems most plausible.

further reading

- [Karl S. Kruszelnicki's "Great Moments in Science"](#) page (a hoot with instructions on how to perform the trick with shaved monkey parts; claims it's actually a Chinese trick observed by a 14th century Arab)
- [RICHARD WISEMAN: THE INDIAN ROPE TRICK](#)
- [Secret of the Indian rope trick is finally revealed: it's a hoax](#) by David Brown

Lamont, Peter and Richard Wiseman. *Magic in Theory* (University of Hertfordshire Press, 1999).

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[incorruptible bodies](#)

[The Indigo Children](#)



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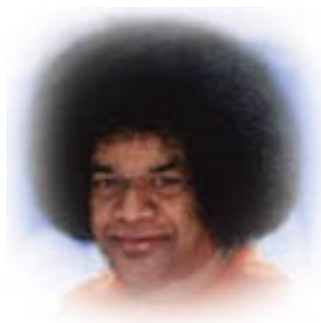
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[Is Sai Baba a pedophile?](#) by Michelle Goldberg, Salon.com

[Suicide, sex and the guru](#) by Dominic Kennedy *The Times* (UK)

Sai Baba

Sai Baba is Satyanarayana Raju, an Indian guru born in 1926 who goes by the name of Bhagavan Sri Sathya Sai Baba. He is believed to be divine by himself and his followers, who allegedly number in the several millions. He claims to have paranormal powers and to be able to work miracles. Two of his favorite "miracles" are to make ashes materialize for poor people and to make jewelry materialize for rich people.



The film "Guru Busters" (Equinox) demonstrated that these alleged miracles are little more than a magician's parlor tricks. One classic line from that film came from an Indian physicist who had been given a ring allegedly materialized by Sai Baba. The physicist said that he had a doctorate from Harvard and could not possibly be fooled by a magician. How many times have we heard brilliant, though deluded, people issue a similar declaration? The film depicts a group called the **Indian Science and Rationalists' Association [ISRA]** as they travel throughout India debunking and exposing as frauds local [fakirs](#), godmen and godwomen. The ISRA debunkers are to India what James Randi is to America and Canada. They utilize scientific and rational principles to expose the magical art of illusion used by Hindu mystics in performing feats of levitation and other alleged miracles.

For more information about the Indian Rationalist Association contact Sanal Edamaraku
779 Pocket 5
Mayur Vihar 1
New Delhi 110091
India
Tel: (0091) 11-225 0487

See related entries on [fakirs](#) and the [Indian rope trick](#).

further reading

- [Sathya Shree Sai Baba: critical views](#)
- [Sai Baba Caught Faking on Video](#) by B. Premanand
- [The Indian Skeptic Pages](#)
- [My escape from the spiders! Escaping the web of Sathya Sai Baba!](#)
- [Dale Beyerstein's book on Sai Baba](#)
- [Who is Satya Sai Baba?](#) By Louis Hughes, Ireland

- [How he does his "miracles"](#)
- [Sai-Baba.Org](#)
- [Sai Darshan](#) - A worshipper's devoted page

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reader comments: false memory

25 Apr 2002

RE: Repressed Memory Therapy Article. Please check your references against this article which provides an intelligent analysis of this issue, that contradicts your article as cited above. It appears that your research has fallen short: <http://www.feminista.com/v2n10/cutlerpage.html>

(name withheld by request)

reply: I'm afraid it is your research that has fallen short. The article you assert is an "intelligent analysis" of the issue is a diatribe and consists of little more than appeals to authority, straw man caricatures, and a litany of ad hominem attacks, including the vicious allegations against James Randi that have been making the rounds in low places for years. Juliette Cutler, the author of the article you cite, seems to have made no effort to find out if these allegations are true. She just passes them on because they fit her agenda. 'Randi is a bad man. If a bad man is on the board of the False Memory Foundation then that foundation must be bad. If it's bad, then their arguments about false memories must be bad.' In case you don't understand, that was a paraphrase of the reasoning underlying Cutler's "intelligent analysis." Of course, she does not state her poor reasoning so blatantly, because its inadequacy would be too obvious. She makes similar ad hominem attacks on Elizabeth Loftus and the founders of the FMF. Again, no effort seems to have been made to determine if these charges are justified, not that being so would make the charges any more relevant to the issue of whether false memory therapists have been abusing patients on a grand scale.

Cutler's straw man argument consists of her underlying assumption that one must deny there are *any* repressed or lost memories if one is to be critical of therapies based on the assumption that most emotional problems are due to repressed memories of childhood sexual abuse. Nonsense. Her appeals to "the literature" to support the claim that various mechanism have been used by psychologists to explain forgotten traumatic experiences is irrelevant. One does not need to deny there are any lost memories to be critical of repressed memory therapy. On the other hand, Cutler has made no effort to understand the issue in terms of what is known about memory and therapy. Where is her reference to "the literature" on what we know about how memory works? Where is her reference to "the literature" on abusive therapies? They are completely lacking from her diatribe.

Finally, to justify being critical of [repressed memory therapy](#), one does not have to deny that there are some people who have abused children but who claim those they abused suffer from "false memory syndrome." It has been said before by critics of repressed memory therapy, but it bears repeating: the real victims of bad therapy have been those who have had their memories of abuse created by therapists and those who have been abused but who are not believed because of the suspicions raised that they are just trying to evoke sympathy or attention, or that their memories, like so many others, are false memories.

postscript: I think you will find that of all the many charges of sexual abuse being made lately against Catholic priests, few, if any, of the accusations have come from those who have remembered the abuse while under treatment by a recovered memory therapist. Many of them have been in treatment *because* of their abuse. Most have remained silent, not because they forgot what happened to them, but because they were threatened, paid off or convinced that they should suffer in silence for the good of Mother Church.

post postscript: (April 28, 2002) Yesterday's [Sacramento Bee](#) had an article by Dorothy Korber regarding a 39-year-old woman who four years ago claimed to have had a recovered memory of five years of sexual abuse by her parish priest beginning in 1974. She claims that "the memories of her molestation first flooded back as she watched a television documentary on pedophiles during the late 1980s." Then, in 1988 she followed "the advice of sexual assault counselors in Washington" and reported the alleged molestation to the Vallejo police. The priest was never charged with any crime by the Vallejo district attorney. To this day, the priest denies the charges.

While it is impossible for us to know with absolute certainty whether the priest molested the girl, there are facts we do know.

- the alleged victim claims she was sexually abused by the priest from ages of 11 to 16
- for 20 years she did not remember the abuse and did not report it
- while watching a television program on abuse the memory of her own abuse "flooded back"
- her parents claim the priest babysat their daughters and that they walked in on the priest in bed with the girl
- the diocese of Sacramento and its insurance company paid the alleged victim \$350,000 in a confidential settlement that the alleged victim has not kept confidential
- the alleged victim's sister, who shared a room with her, does not remember any of this, including the night that the parents claim they saw the priest in bed with their daughter
- the priest married the daughter who doesn't remember the abuse

- of her sister, apparently without protest from the parents
- the parents invited the priest to their home for dinner and for counseling *after* they allegedly found him in their daughter's bed
- the priest denies he ever served as a babysitter for anyone
- he denies he abused the girl
- no other charges of abuse are known to have been made against this priest by anyone else in the thirty or so years he has been a priest ([see below](#): another charge has been made)

The fact that her parents, who are now separated, both claim that they saw the priest in bed with their daughter when she was 12 seems most damning. Why would they make up such a story? Who knows. Perhaps they are telling the truth. But perhaps they are protecting someone, another person who is called 'father.' Perhaps the girl was abused by her own father, but rather than face such a thought, she has transferred the source of her abuse to another 'father,' her parish priest.

I must admit it would be odd to find a parish priest babysitting teenage girls. It is even odder to think a child's parents would be so stupid as to invite an abuser to dinner, request that he counsel them, and allow him to marry their other daughter. And it is certainly not consistent with what we know about trauma and memory that a girl who was abused from the ages of eleven to sixteen would not remember it until her memory was jarred by a television program twenty years later.

It is not odd for people to lie to protect people they love or fear. It is not odd for people to be confused about [source memory](#), even about such things as sexual assault. Nor is it odd for the mind to reconstruct memories that distort the truth. Finally, it is not odd for insurance companies to settle cases, even when the accused is innocent.

I don't know who is telling the truth in this matter and neither does reporter Dorothy Korber. Yet, her story is clearly sympathetic to the alleged victim and her parents. Why? Perhaps because journalists have declared it open season on Catholic priests. The media did this once before with child care workers. This time there should be no excuse. There *is* a way to tell the John Geoghans and Cardinal Laws from others who are accused with evidence that is underwhelming.

I find it more than just interesting that the *Bee* placed the story of the allegations against the priest on the front page juxtaposed to the story about the the boy who killed 18 people in a German school. (I'd link you to the article but the *Bee* took it down the day after the story ran.) On the same day, a story about the arraignment of a local man who shot and killed his girlfriend, abandoned their 18-month old son by the San Francisco airport and then fled to France where he was caught a few days later and held for four years while he fought extradition, was buried

on the 3rd page of the Metro section.

update: (May 1) Dorothy Korber, the author of the Bee article responded to my criticisms by telling me "You're wrong" and "There were other instances over the years that were corroborated by her sisters and her parents." Korber thinks this strengthens the case against the priest, but I think it weakens it. If they knew of other instances over the years and these were corroborated by her sisters and parents, then it makes it more inexplicable why the parents would continue to invite the priest to the house and let him perform the marriage of one of their daughters.

update: (June 15) Jennifer Garza, Bee staff writer, had the lead story in [today's Sacramento Bee: Lincoln priest suspended over 2nd allegation](#). This is the same priest Korber wrote about. Very little information about the new charge is given by Garza. A woman alleges Brady "molested her" more than twenty-five years ago and the Bishop is reported as having called the allegations "credible." Garza writes that the charge is unconnected to the earlier charge by another woman and was received via a hotline set up last April "for victims to report allegations of sexual abuse to the diocese." "Law-enforcement officials" have been notified and are investigating the charge, according to Garza, as is the church. The priest has been put on "administrative leave" pending the outcome of the investigations.

further reading

- [Child-abuse probe of '80s questioned](#) BY GLENN GARVIN



[false memory](#)

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searching for memory

the brain, the mind, and the past

by Daniel Schacter

New York: Basic Books, 1996

There is scarcely a human activity which is not affected by memory. To overestimate the importance of studies on memory seems impossible. Yet, all too often, we take memory for granted and make assumptions about memory without knowing whether our beliefs are based on fact or myth. Most of us can be excused for our ignorance, since studies of memory rarely attract the attention of the mass media. There are some notable exceptions, such as the "Memory Wars", as Schacter refers to the battle over recovered [repressed memories](#) of alien abductions or of childhood abuse and murder. Daniel Schacter makes accessible to the general reader the background information necessary to make sense of the "Memory Wars." (He devotes an entire chapter to the issue.) He provides an invaluable map of where we are in the quest to understand one of the most fundamental properties of the human mind. And he dispels a few myths along the way.

Some readers might be disappointed to find out that we don't really know how memory works. There is no universally agreed upon model of the mind/brain, and no universally agreed upon model of how memory works. Two models popular with materialists, the behaviorist model and that of cognitive psychology (the brain as computer), are rejected by Schacter because they cannot account for the subjective and present-need basis of memory. Lest dualists get their hopes up, Schacter's concern for a model which does justice to subjectivity has nothing to do with a concern for a "transcendental unity of apperception" or a "self" to be distinguished from the self's memories. Subjectivity in remembering, he says, involves at least three important factors. One, memories are constructions made in accordance with present needs, desires, influences, etc. Two, memories are often accompanied by feelings and emotions. Three, memory usually involves the rememberer's awareness of the memory. A good model of how memory works must not only fit with scientific knowledge but also fit with the subjective nature of memory.

In chapter two, "Building Memories," Schacter presents a sketch of a model which incorporates elements of both a neurological and a psychological model of memory. He notes that there should only be one correct neurological model (N-model), a model of how the brain and neural network function in

memory, a descriptive model of functions and causal connections. But there may be several psychological models (P-models) of memory, though each of them must be true to the N-model, as well as to subjective experience, to be adequate. P-models are explanatory models, trying to help us make sense out of the experiences of remembering and forgetting.

For example, one P-model sees memory as a present act of consciousness, reconstructive of the past, stimulated by an analogue of an engram called the "retrieval cue." The engram is the neural network representing fragments of past experience. Schacter elaborates throughout his book on studies supporting the notion that memories are reconstructions of the past and might better be thought of as a collage or a jigsaw puzzle than as "tape recordings," "pictures" or "video clips" stored as wholes. On this model, perceptual or conscious experience does not record all sense data experienced. Most sense data is not stored at all. What is stored are rather bits and fragments of experience which are encoded in engrams. Exactly how they are encoded is not completely understood, but what progress has been made in understanding the complexities of neural encoding is set out by Schacter in various chapters. For example, he discusses Wilder Penfield's experiments done in the 1950's which involved placing electrodes on the surface of the exposed temporal lobes of patients. He was able to elicit "memories" in 40 of 520 patients. Many psychologists (and lay people) refer to these experiments as proof that memories are stored in specific places and that even though we may not remember much of our past, the right stimulus would evoke a memory of things long forgotten. In a survey of psychologists by Loftus and Loftus, 84% said they believe every experience is permanently stored in the mind. [p. 76] Maybe so, but Schacter points out that the Penfield experiments are not very good evidence for this belief. Not only could Penfield only elicit "memories" in about 1 out of every 8 patients, he did not provide support for the claim that what was elicited was actually a memory and not a hallucination, fantasy or confabulation.

Other studies indicate that encoding involves various connections between different parts of the brain. In fact, what is being discovered is that there are distinct types and elements of memory which involve different parts of the brain. I will not attempt to report on any of those discoveries here, but the reader should be prepared to take a journey inside the brain. I will say, however, that Schacter does an excellent job of not getting overtechnical or burdening the reader with extraneous jargon. There is a lot of jargon used in his discussions of neuroscience and psychology, but in my view it is neither burdensome nor unneeded.

On the P-model described in the previous paragraph, forgetting is due either to weak encoding, to lack of a retrieval cue, to time and the replacement in the neural network by later experiences, to repetitive experiences (you'll remember the one special meal you had at a special restaurant, but you won't remember what you had for lunch a year ago Tuesday), or to keep us from going crazy. (Imagine never forgetting anything, actually achieving the stated

goal of L. Ron Hubbard's [dianetics](#): reaching the state of "the clear." His followers should read Jorge Luis Borges "Funes, the Memorious," a story about such a being.) The chances of remembering something improve by "consolidation," creating strong encoding. Thinking and talking about an experience enhances the chances of remembering it. One of the more well-known techniques of remembering involves the process of association. For example, today I attended a meeting which involved a discussion of security procedures. The phone number extension of the campus police was given. Such a number is easy to remember if associations are made. Most of us can remember a phone number long enough to dial it, but when you want to remember a phone number, even a 4-digit extension, six months or a year from now without ever having dialed the number, the task gets more difficult. In this case, the number is 2365. All our campus extensions begin with 2, so I only need to remember 3 digits. In this case, the three digits, 365, is the number of days in a year. Thus, if I reinforce the association with the days of the year--by occasionally reminding myself of the association when I look at the calendar--I think I'll remember the extension of the campus police a year or even five years from now.

The daily amnesia most of us suffer, awakening after a night of dreams but unable to remember any of them, is a bit more complex but weak encoding is at work here, too. Most of us can remember a dream which occurred just before awakening, but find that later in the day we've lost all memory of the dream. To remember dreams, some suggest that you get up immediately and write down the dream. An easier method is to stay in bed and create some associations. The easiest association is to give your dream a title and a purposive description. I tried this for a few nights and found that I could remember the title and the dream later in the day. I began writing the title of the dream down and then a brief description of what I thought the dream suggested. For example, I entitled one dream "The Mailbox" and described its purpose as "write to J.B." That little bit of information serves as a retrieval cue and I can now remember the dream: I am standing in front of a large number of mailboxes, the type they have at post offices or in department mail rooms. Next to me is a friend I've known since grammar school but haven't seen in ten or fifteen years. I notice that his brother also has a mailbox and indicate my surprise that R. is on the staff, too. My friend and I are obviously colleagues in the dream. J.B. says to me that R. isn't really on the staff; he works at the Shell gasoline station. The dream occurred during the Christmas holidays. I used to hear from J.B. at Christmas time...usually one of those form letters telling us about the kids, etc., but I haven't heard from him in several years. I took my dream to reflect some sort of uneasiness about the lack of communication between an old friend and myself and as a suggestion to write J.B. a letter and reestablish communication. (I have no idea what the part about his brother and the Shell station means. I knew his brother fairly well and there's no chance I was connecting the news stories about Shell executives being racists and J.B.'s brother. No one in J.B.'s family was bigoted or prejudiced to my knowledge.) Anyway, the point is that I have little doubt that I would have completely forgotten the dream if I had not

given it a title and a description and then later on wrote down both and tried to recall the details. (I must admit that I had forgotten the dream and the details until I looked at my notes which contain only the five words mentioned above. If I had written to J.B., I doubt that I would have forgotten the dream, for that activity would have been one more element of elaborate encoding of the memory.)

Of more interest than my dream is the discussion of Jonathan Winson's theory that during REM sleep, the brain is consolidating and strengthening some memories while discarding others. The hippocampus may be playing back experiences to various cortical regions where it will eventually be permanently stored. [p. 88]

In addition to dream amnesia, Schacter has much to say about other kinds of amnesia, including the kinds of cases which neurologist Oliver Sacks is famous for writing about. The effects of alcohol, brain injuries and physical or psychological traumas on memory are exemplified with case studies such as the Russian scientist who could remember his childhood but not his recent past. (He'd written an autobiography, so the accuracy of his childhood memories could be checked.) There is also the case of psychogenic amnesia of a man Schacter calls Lumberjack. He was a young man who didn't know who he was, who was found wandering the streets of Toronto. He could not remember anything of his past except the word Lumberjack and a few other details from a period in his life about one year prior to when he was found. He was in what psychiatrists call a *fugue* state. His amnesia had been triggered by his grandfather's death and was spontaneously cleared up while watching a television program depicting a funeral and a cremation.

One type of amnesia, what Schacter calls *limited amnesia*, is quite common. Limited amnesia occurs in people who suffer a severe physical or psychological trauma and are unable to remember the event. Several such cases are described by Schacter as he explores the possibility of a link between the different kinds of experiences which result in limited amnesia, as well as the connection between trauma-induced amnesia and the unconscious mind.

On the amnesia claimed for repressed memories, which has become popular with certain therapists in recent years, Schacter devotes a whole chapter. [Repressed memory therapists](#) have failed to provide an adequate model of memory to account for what they claim is happening in *repression*. The idea that all of us have memories we can't access, but which are causing mental and physical illnesses, is a popular one. The idea that some experiences are so traumatic that as a defense mechanism we suppress the thought of such experiences has been repeated so often as to be considered a fact by many people. But is it? Schacter does not think so. The scientific evidence for repression is weak. Even weaker is the evidence that specific disorders are caused by repression of specific kinds of experiences, such as the experience

of sexual abuse. Unlike cases of amnesia which involve alcohol, drugs, brain injury or disease, or psychological trauma, the cases involving repressed memories often depend on whether the patient really suffers from amnesia. The repressed memory therapists seem to start with the assumption that most of their patients suffer from amnesia, but the amnesia is very specific and always involves just the kind of thing most people would remember. On the other hand, there are cases where the amnesia is not in doubt, and the evidence indicates that some sort of implicit memory exists which is troubling to the amnesiac. Schacter notes the case of a rape victim who could not remember the rape which took place on a brick pathway. The words *brick* and *path* kept popping into her mind, but she did not connect them to the rape. And she became very upset when taken back to the scene of the rape, though she didn't remember what had happened there. [p. 232]

One of the more interesting areas of discussion in the "Memory Wars" is that of *memory distortion*. The distortion can be a distortion of attitude, whereby a present mood or emotion invades a memory and imbues it with one's present emotive state even though the original experience was not colored by the same mood. (This is the obverse of trying to put yourself in a good mood by remembering some pleasant experiences from the past.) The distortion might be of the content, especially source distortion. E.g., you're robbed. The police show you a photo of a man and ask is this the man. You say that you're not sure. Later, in a line-up you positively identify the robber, who turns out to be the man whose photo you had been shown. It turns out that he could not have robbed you, because he was in jail at the time you were robbed. Your memory was distorted by the photo; you remembered the robber but the source was not your perception while being robbed, it was your perception of the photo shown to you by the police. Studies on *source memory* (recalling precisely when and where an event occurred) indicate that such distortion is not uncommon. Distortions can also be caused by making assumptions or drawing inferences which creep into our encoding and associations. [ch. 4]

Memory distortion is dramatically exemplified by Schacter in a simple experiment. Pay attention to the following series of words: candy, sour, sugar, bitter, good, taste, tooth, nice, honey, soda, chocolate, heart, cake, eat, and pie. After looking at the list, turn away and write down all the words you can remember from the list.

Now take the following test. consider the three words printed in italics at the end of this sentence and, without looking back to the previous paragraph, try to remember whether they appeared on the list....*taste, point, sweet*. [p. 103]

Between 80-90 percent of those tested by Schacter in the "sweet experiment" claim erroneously that *sweet* was on the original list. Many not only believe *sweet* was on the list, they claim to remember it vividly. Amnesic patients, on the other hand, made many fewer false recognitions than did healthy subjects.

"This is because the amnesic patients did not successfully encode and retain the gist of the studied words. False recognition of *sweet* requires accurate retention of the general meaning of the words on the target list, which in turn depends on the hippocampus and other medial temporal lobe structures that are damaged in amnesic patients." [p. 104] But getting the gist of something does not guarantee that the details are remembered accurately. The implications of memory distortion can be enormous and are discussed at length by Schacter.

Schacter also takes up the issues of memory in children. If not misled, they give generally accurate info, though they have particularly poor source memory, perhaps due to their immature and undeveloped frontal lobes. [p. 128] He reminds us again and again of the fragility of memory and how it is often accompanied by an inappropriate feeling of absolute certainty. My favorite story here is the one regarding John Dean, President Nixon's White House counsel who was part of the Watergate coverup. Dean testified for days, giving enormous amounts of details to meetings that took place many months before his testimony. He seemed a veritable treasure trove of Watergate data. However, when the infamous tapes were discovered and played back, a comparison of what was actually said at the meetings and what Dean remembered as having been said, did not match up very well when it came to details. Hardly any of the details Dean testified to were correct, though he remembered general events pretty well, probably aided by his notes. [pp. 111-112]

Hypnosis and memory is another topic Schacter takes up. Studies on hypnosis show that hypnosis does nothing to enhance the accuracy of memory. Highly hypnotizable people are vulnerable to creating illusory memories when given suggestions. Hypnosis, he says, "creates a retrieval environment that increases a person's willingness to call just about any mental experience a 'memory'." [p. 108] Hypnosis heightens a person's subjective confidence in the veracity and accuracy of memories, however. The distorting power of hypnosis over memory has been documented since Freud, but recent studies show that those hypnotized have fewer illusory memories when either (1) they have a poor rapport with the hypnotist; (2) when the subject is given an incentive to carefully distinguish between real and imaginary events and (3) when the subject is led to believe he or she will be able to make such distinctions when hypnotized.

There are many other topics which Schacter takes up. An entire chapter is devoted to the role of emotions in memory. Fascinating case studies are presented of people whose memories are like visions and direct and control their lives. He presents the results of his own studies in implicit memory (memory without awareness) and "priming," and the practical applications of those studies for developing programs using a "vanishing-cues procedure" for training brain damaged amnesiacs. [ch. 6] There are discussions throughout the book on various types of memory from the familiar short-term vs. long-term memory to distinctions between implicit/explicit memory;

semantic/procedural/episodic memory; field/observer memory; lifetime/general event/event-specific memories; and more. Concepts such as "flashbacks", *deja vu*, and removing the effort to help remember something, are discussed, as is the topic of amnesia and dissociation (multiple personalities or dissociative identity disorder). In fact, the only topic not covered that I expected to be covered was "photographic memory."

Schacter has something to say to who wish to improve their memories and those who fear losing their memories as they grow old. You'll have to read the book to find out whether it would be worthwhile to invest in one of those memory courses advertised on infomercials. I'll only note that studies showed that people who could remember long lists of numbers by associating the numbers with familiar experiences or knowledge, could not carry over this ability to non-numerical tasks. As for the fear of losing memory with age, Schacter devotes his tenth and final chapter to the topic of aging and memory. I won't reveal what he says, but he does give this bit of advice: *if you forget where you put your car keys, don't worry. If you forget you own a car, worry.*

Finally, the book is illustrated throughout with works of art whose subject matter is some aspect of memory. Schacter collects such art and links the work of artists to that of scientists in an interesting and generally illuminating way.

Bob Carroll

January 18, 1997



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further reading [repressed memory therapy](#) The entry on *The Skeptic's Dictionary* discusses chapter nine, "The Memory Wars," of *Searching for Memory*. [Daniel L. Schacter's Homepage Reviews of Searching for Memory](#)

Memory Distortion: How Minds, Brains and Societies Reconstruct the Past, ed. by Daniel Schacter et al. (Cambridge, Mass: Harvard University Press, 1995). [Review](#)

[Starship memories: "Alien abductees" provide clues to repressed, recovered memories](#) By Beth Potier

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[The Skeptic's Refuge](#)



falun gong (a.k.a. falun dafa)

"Falun Dafa cultivates a Falun in the lower abdomen area instead of Dan....Falun Dafa cultivates Zhu Yishi instead of Fu Yishi, He Who practices attains Gong. Namely, your Zhu Yishi or Zhu Yuansheng attains the cultivation energy." --Li Hongzhi*

The doctrines of the Great Law of Falun Dafa can give guidance to anyone in their cultivation including those who have religious beliefs. This is the Principle of the universe, the true Law that has never been revealed. In the past humans were not allowed to know the Principle of the universe (Buddha Law); it transcends all the sciences and moral principles of ordinary human society from ancient times to the present. What has been taught in religions and what people have experienced are only superficialities and phenomena, while its extensive and profound inner meaning can only present itself to and be felt and understood by the cultivators who are at different levels of their true cultivation, and they can really see what the Law is. --Li Hongzhi*

Falun gong (pronounced fah-luhn gung) is [Li Hongzhi's](#) version of [qi gong](#), which is an ancient Chinese practice of "energy cultivation". *Falun* means "wheel of law"; *falun dafa* is falun Buddha law.* According to Li, falun gong "is a cultivation system aiming at cultivating both human life and nature. The practitioner is required to attain enlightenment (open his cultivation energy) and achieve physical immortality in this mortal world when his energy potency and Xinxing [mind-nature] have reached a certain level."*

Li claims to have taken energy cultivation to a new level. He also claims to have some 100 million followers worldwide, though he also claims that he keeps no records and that falun gong is not a cult, religion or sect ("Followers defend falun gong as innocuous," by Brian Milner, *The Globe and Mail* (Canada), July 22, 1999.) His popularity is great enough in China to have led to the arrest of more than 30,000 practitioners and a formal ban on falun gong, apparently for little more than being popular and thereby posing a threat to the stability of the repressive Communist regime ("China arrests 30,000 members of spiritual group," *The Globe and Mail* (Canada), July 22, 1999, by Miro Cernetig.)

Li left China in the early 1990s and lives in New York City. He promotes his beliefs in books he has written. His teachings are available on the [Internet](#), which has significantly affected his status and popularity [internationally](#). While much of falun gong is a rehash of traditional Chinese notions regarding meditation and exercises, Li has emphasized an anti-scientific approach to disease and medicine. He says disease is "is a black energy mass" that he can dissipate with his powers. Those who use medicine for their illnesses lack

faith in falun gong. True believers don't need medicine. They understand that disease exists in some other space beyond physical space and that only those with "supernormal capabilities" can truly heal. True healing involves "cultivation energies...in the form of light with very tiny particles in great density."* He claims that he does not tell people not to use medicine, but that he has cured thousands of terminally ill people. He also claims that he advises terminally ill and mentally ill people not to practice falun gong. The former are too focused on their illness and the latter are not clear-minded enough to practice properly.

Li claims that falun gong is one of 84,000 cultivation ways of the Buddha's school. He claims that it has only been used once before, in prehistory, but that he is making it available again "at this final period of the Last Havoc."*

Falun is the miniature of the universe with all the abilities of the universe. It can automatically move in rotation. It will forever rotate in your lower abdomen area. Once it is installed in your body, it will no longer stop and will forever rotate like this year in and year out. During the time when it rotates clockwise, it can automatically absorb energy from the universe, and it can also transform energy from itself to supply the required energy for every part of your body transformation. At the same time, it can emit energy when it rotates counter-clock and releases the waste material which will disperse around your body. When it emits energy, the energy can be released to quite a distance and it brings in new energy again. The emitted energy can benefit the people around you....When Falun rotates clockwise, it can collect the energy back because it rotates forever....



Because Falun rotates forever, it cannot be stopped. If a phone call comes or someone knocks on the door, you may go ahead and take care of it immediately without having to finish the practice. When you stop to do your work, Falun will rotate at once clockwise and take back the emitted energy around your body.*

How Li knows about these rotations is a mystery, but he has many followers throughout the world who feel enlightened by these "teachings."

In short, falun gong is based upon the belief that the universe consists of

magical energies that can be tapped into by certain practices and which can eliminate the need for medicine, bringing one to a state of enlightenment and physical immortality.* Its popularity seems directly related to its claim to bring health and relieve stress while providing enlightenment. It is anti-science, anti-medical establishment, and anti-materialism; thus, falun gong is attractive to many people who are fed up with the world as it is and their position in it.

It is difficult to understand why the Communist party in China fears falun gong. Their practices would relieve the demand for medical assistance, thereby saving the government millions of yuan. They encourage truthfulness, forbearance and compassion. Of course, members may not be very useful to society, since they are not materialistic and would prefer to spend their days meditating and exercising in the park, cultivating energies, rather than working in factories. Then again, communists don't like competition.

note: During the last week of July, 1999, more than 1,200 government officials who practice falun gong were "detained" by Chinese authorities. China's Ministry of Public Security issued an arrest warrant for Li Hongzhi, blaming him for the deaths of 743 followers. According to Michael Laris of the *Washington Post*, China "provided no evidence linking Li to any of the alleged deaths."

See related entries on [chi](#) and [chi kung](#).

further reading

- [FALUN GONG & FALUN DAFA What it is, what it does, and why the Chinese government is so terrified of it](#)
- [China Falun Gong](#) by Li Hongzhi
- [Falun Dafa](#)
- [Falan Dafa in North America](#)



Search the Skeptic's Dictionary



reader comments:

feng shui

Sat, 16 Sep

Thanks for your article on Feng Shui. I'm an interior design student and took a Feng Shui class recently. The people in the class were really taking it a bit too seriously, worrying that their personal trigram didn't work with their husband's, etc. I was surprised that people who didn't know anything previously about Feng Shui took everything so seriously and literally. Not one question was asked about exactly how rearranging one's bedroom will bring one love. Maybe it's just a state of mind, I don't know, but they just went with it. Kinda reminded me of religion.

However, Feng Shui definitely has it's good points that should be incorporated into interior design. A few points include being organized, putting safety and comfort above style, getting rid of objects that bring back negative memories, and fixing broken things.

I think it's ridiculous that people believe they have to hire "Feng Shui" experts, when incorporating elements are simple and easy to learn from books. However, I took the class because people are always going to want to hire someone to do it for them. I'm not complaining!

Your site is wonderful, keep it up!!

Cheers, Meretricula

reply: I guess sometimes you just have to give the customer what he or she wants. But it is dismaying that there is so little skepticism about such things as feng shui.



reader comments:

firewalking

12 Dec 1999

I just tripped across you site this evening...and read your comments on fire walking which I have done...just a guest along on a Halloween Eve...no intention and really no need to know...but when I was asked to just place my hand over the coals to see there was no heat...NONE...as they burned red hot bright...I burst into laughter...however, I had no idea of the science which you refer to...or the limits of time...or one will get burnt...but we stood and danced upon the red hot embers for some 30 minutes...and even held the red hot beauties in our hands...felt no heat...none whatsoever...yet a sparking hot ember was in my hand...as I squeezed my hand into a fist around it...while we were still standing upon the coals...so much for the run fast or you will get burnt...only once did the embers feel hot...and that was when my logical and rational mind went to ponder the reason and science behind what I was experiencing...for I assure you that was a hot, hot fire as it burned on that brisk Halloween Eve...and I was told to snap out of it...or else I would get burnt...as evidently my mind was slipping into the concept of limits...

reply: Evidently.

However, I was really looking for something else on your site...as I continue to experience electrical jolts from objects...receiving extreme charges of some sort at times...more than a spark from the carpet...and looking for a scientific or otherwise anecdotal explanation of this...as they are very intense at times...I think anecdotes can lead one to more scientific reasons...as I have been experiencing so-called paranormal things for some time...

Virginia C. Cobler, M.A. (political scientist)

reply: Next Halloween Eve you should repeat your experience for [James Randi and collect a million dollars](#). Standing on, dancing on, and holding red hot coals for thirty minutes without feeling heat or getting burned seems paranormal enough for me. For the sudden experience of extreme electric jolts I would see a neurologist before I jumped to the conclusion that they are paranormal happenings.

27 Jun 1999

I agree with you to a certain extent regarding the explanation that you gave for

firewalking. Although I have never been firewalking I have done a similar thing by picking up a scoopful of hot coals in my bare hands without being burnt. I have done this on numerous occasions and whilst I have never held onto the coals for more than a second or so I yet to be burnt. The skin on my hands is not at all thick and the conditions of my hands (i.e. hot, wet, cold etc) makes no difference to being able to do it. However I have seen someone get burnt doing it, that being because there was a tin can submerged in the coals which he touched, thus rapidly conducting heat into his hand and burning him. I certain that if you sprinkled a couple of blunt nails (being metal they would conduct heat faster) into a fire pit and asked a fire walker to walk across it then no amount of "faith" would protect him.

However that being said I have also heard of people being burnt because they were convinced that they were going to get burnt. Something of a psychosomatic response, however I am unsure of the validity of this claim.

Duncan Gill

reply: And well you should be.

Come visit [my site](#). I just can not write off my experiences to low coal thermal conductivity. As you can see I present firewalks on real fire and not just coals, and as you can see, my participants don't look like they are having a bad time.

Can you even acknowledge that there might be a life force that could possibly protect you?

Ilmar Saar

response: All I can see is that you plan to make a lot of money raking people over the coals.

30 Jun 1996

This dictionary is clearly a bastion of logic, and I love it. One complaint, however--the ability to firewalk is not due, as you write, to the ability of coals to transfer heat to the human foot. The coals in my grill seem to do that just fine to a porterhouse! It's actually due to what's called the Leidenfaust (or something like that) effect. It's the same reason that if you lick your finger, you can extinguish a candle flame with your fingers without getting burnt. What happens is that the intense heat evaporates instantly the sweat on your feet, creating a layer of water vapor. Even though it is extremely thin, water vapor conducts heat very poorly, and so your feet are protected (as long as you don't stop for a hot dog!). In short, all the heat goes to evaporating the sweat and so doesn't give you third-degree burns. Those who are burned just don't have sweaty-enough feet (isn't that ironic? Being punished for having NONSMELLY

feet?). This is standard physical thought (See Jearl Walker--he's a physicist with. . .Princeton? I think?)

*Anyway, get your facts straight.
--Tyson C Burghardt*

reply: Our disagreement is not about facts, but about the explanation of facts. The liquid insulation explanation is mentioned in my entry but I don't think it is as good an explanation as the conductivity theory. However, it is true that sweat or liquid can briefly insulate the foot while prancing over hot embers. Some firewalkers systematically dip their feet in water before their incendiary strolls. Sweat and water may help make the firewalk less dangerous, but I don't think they explain how anyone can walk on coals. On the other hand, some firewalkers *dry* their feet before firewalking and dip their feet in water *after* the firewalk. That makes more sense to me. A dry foot may be less likely to pick up any loose embers and a wet foot will extinguish any embers that might be clinging to a foot.

16 Jul 1996

I was interested in your article about fire walking. The trick is simple, I have performed this act severel times:

- a) The feet must be dry,*
- b) The feet must be cold*

The latter is achieved by walking through a creek, water at the beach or (very effective) cooling ones legs in ice for about five minutes.

A simple example is as follows:

- a) Cool your thumb and index finger on a cold glass of ice water.*
- b) Wipe the fingers dry and hold a (red hot) burning cigarette between thumb and index finger, on any finger which you cooled down.*

You will be able to hold the hot cigarette between your fingers for an impressive period of time, without burning yourself.

*Again, the trick is: Feet, legs, hands or fingers must be cold and dry!
--H. D. Krebs*

reply: thanks for the cool tip.

19 Feb 1997

I recently walked over hot coals. I was fully prepared beforehand.

Two others in my group burnt their feet and were in hospital for over a week. One requires skin grafts. Forty others walked over with little or no ill-effect. Strange how the skeptics believe it is not really possible unless "their soles are thin, they don't move quickly enough, they spend too much time on the coals, the coals are too hot or because the coals are of a kind with a relatively high heat capacity." I might mention the two men went over once with no problem, but were burnt on the SECOND try (thereby proving that their soles are not too thin).

They agree that on the second try they were not mentally as prepared as their previous try. They, like you, thought that it was not a matter of mental preparation, just the way it is. How wrong they turned out to be.

Helene Comber

Curtin University Western Australia

reply: Did it ever occur to you that the explanation of the men who failed might be wrong? Declaring something to be the case does not make it so. By believing you succeeded because you were "mentally prepared" may be a delusion, even if a pleasant and harmless one. In any case, I fail to see how it is "thereby proved" that their soles were not too thin on the grounds that they made it through the first time and were severely burnt on the second run. In fact, I have no idea why you think sole thickness is a key issue here. They may have burnt off some layers of skin on the first run through; they may not have moved fast enough on the second try; the fire may have been hotter the second time through due to less ash covering the coals (the ash being moved and removed by the 40 who ran through the first time). There are quite a few alternative explanations besides lack of mental preparation to explain the burns.



[firewalking](#)

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reader comments:

flying saucers

7 Jan 1998

On your "flying saucers" page you state;

"The reason UFO's are often described as flying saucers seems to be due to Kenneth Arnold's claim in 1947 to an editor of the Eastern Oregonian that he'd seen nine round aircraft near Mount Ranier which were flying erratically at incredible speeds and that reminded him of saucers skimming over water."



Arnold never claimed to have seen disc-shaped or round craft at all, in fact he stated they were crescent-shaped as later photos of Arnold holding up illustrations show. (See photo at right).

I have often wondered why people then began reporting disc-shaped craft in light of his description. It seems that newspapers have a lot to do with the promulgation of a conceptualization as evidenced in the 1890's wave. (my pet area of investigation at the moment). The heuristic model of a disc-shaped craft seems to have more to do with mythology created by inexact newspaper reportage than any actual sightings. It also could be explained by people noticing balloons for the first time which can be construed as disc-shape given the single angle of observation.

Coming from a pro-UFO background, I have become a lot more skeptical since applying the principle of Ockham's Razor, and also not neglecting the other surrounding contemporaneous events that could explain reports of UFO's.

My daylight sighting with my father and his golf partner in the late 1960's still remains unresolved. I don't hold to any specific theory about what we saw and have tried in vain to resolve it in some prosaic way to no avail. It is by this thread alone that I don't dismiss the phenomenon all together.

I am convinced that the signal-to-noise ratio is probably close to 1 to 99 however. Since there is much more noise to study and plenty of data with which to study it, I have chosen this route of investigation. If there appears to be a signal after removing most of the noise, I deal with that then.

Drew Williamson

reply: This wouldn't be the first time the mass media created a myth. Witness the recent headlines in magazines such as *Newsweek* about the so-called *Kennedy Curse*. While it is true that the family of Joseph Kennedy has known a significant number of troubles, so have a lot of other large families. It is doubtful whether the Kennedys have had a disproportionate share of woe. Those who are not famous are allowed to suffer out of view of the mass media. It should not be forgotten that the Kennedys have also known a great deal of success, perhaps a disproportionate amount measured by what they might actually have deserved. But who would dare speak of Camelot now?

note: Miguel Estrugo has called attention to the similarity between Mr. Arnold's crescent shaped craft and the German [Gotha Go-229](#) built by the Germans during WWII.



[Flying Saucers](#)

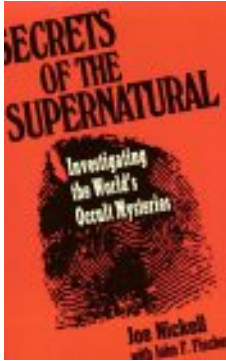
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Secrets of the
Supernatural, ch. 11
FIERY FATE -
Specter of
"Spontaneous
Human Combustion"

spontaneous human combustion (SHC)



Spontaneous human combustion (SHC) is the alleged process of a human body catching fire as a result of heat generated by internal chemical action. While no one has ever witnessed SHC, several deaths involving fire have been attributed to SHC by investigators and storytellers.

In the literature, spontaneous human combustion is almost exclusively reserved for corpses. One 17th century tale, however, claims that a German man self-ignited due to his having drunk an excessive amount of brandy. If drinking a great quantity of brandy caused self-combustion, there should be many more cases to study than this isolated report from Germany.

Many of the SHC stories have originated with police investigators who have been perplexed by partially ignited corpses near unburnt rugs or furniture. "What else could it be?" they ask. Many of the allegedly spontaneously combusted corpses are of elderly people who may have been murdered or who may ignited themselves accidentally. Yet, self-ignition due to dropping a lit cigarette, or ignition due to another person are ruled out by the investigators as unlikely. Even when candles or fireplaces present a plausible explanation for the cause of a fire, investigators sometimes favor an explanation which requires belief in an event which has never been witnessed in all of human history and whose likelihood is extremely implausible.

physical possibility of SHC

The physical possibilities of spontaneous human combustion are remote. Not only is the body mostly water, but aside from fat tissue and methane gas, there isn't much that burns readily in a human body. To cremate a human body requires enormous amounts of heat over a long period of time. To get a chemical reaction in a human body which would lead to ignition would require some doing. If the deceased had recently eaten an enormous amount of hay that was infested with bacteria, enough heat might be generated to ignite the hay, but not much besides the gut and intestines would probably burn. Or, if the deceased had been eating the newspaper and drunk some oil, and was left to rot for a couple of weeks in a well-heated room, his gut might ignite.

It is true that the ignition point of human fat is low, but to get the fire going would probably require an external source. Once ignited, however, some researchers think that a "[wick effect](#)" from the body's fat would burn hot enough in certain places to destroy even bones. To prove that a human being might burn like a candle, Dr. John de Haan of the California Criminalistic Institute wrapped a dead pig in a blanket, poured a small amount of gasoline on the blanket, and ignited it. Even the bones were destroyed after five hours of continuous burning. The fat content of a pig is very similar to the fat content of a human being. The damage to the pig, according to Dr. De Haan "is exactly the same as that from supposed spontaneous human combustion."

In their investigation of a number of SHC cases, Dr. Joe Nickell and Dr. John Fisher found that when the destruction of the body was minimal, the only significant fuel source was the individual's clothes, but where the destruction was considerable, additional fuel sources increased the combustion. Materials under the body help retain melted fat that flows from the body and serves to keep it burning.

further reading

[reader comments](#)

- [Spontaneous Human Combustion. Thoughts of a Forensic Biologist](#) by Mark Benecke, *Skeptical Inquirer* 22(2) (1998), p. 47-51
- [New Light on Human Torch Story](#) - human fat as a wick tested
- ["Spontaneous Human Combustion: No Longer a Burning Issue"](#) by Al Seckel
- ["Not-So-Spontaneous Human Combustion"](#) by Joe Nickell
- [Cold Water on a Hot Topic](#) by Barry Williams *the Skeptic* Vol 18, No 4 (Dec 1998)
- [Guy Coates](#) has posted his study of SHC
- [Urban Legends](#)
- [Mary Reeser's incineration](#)
- [FBI Debunks Spontaneous Human Combustion Despite Investigation, Believers Still Cite the Supernatural](#) by Todd Venezia

[Edwards, Frank. *Stranger than Science* \(New York : L. Stuart,1959\).](#)

[Nickell, Joe. *Secrets of the supernatural: investigating the world's occult mysteries* with John F. Fischer \(Buffalo, N.Y. : Prometheus Books, 1991\).](#)

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 [spiritulism](#)

[star child](#) 

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reader comments:

Charles Fort and the Forteans

21 Mar 2000

Hi... Thanks for your website--it's comprehensive and quite professional.

Just in passing, I noticed your entries on Charles Fort, whose body of work I read and enjoyed many years ago. I was surprised, actually, that the Skeptic's Dictionary entry seemed so critical of Fort, with a few SD comments bordering on the defensive. If there was anything I gleaned from Fort's writing, it's that he took himself and his own "notions" even less seriously than he took the Scientific Method. An attentive reading of the "Complete Books of Charles Fort," for example, finds the author chuckling AT himself and the absurdity of his own theories more often than not. There are some hearty laughs in those pages, as Fort spoofs the Scientific Method at length before drawing his final, preposterous conclusions. If you're bogged down in questioning the reliability of Fort's "sources," you've missed the point of his writing altogether: Fort was guiding us through a stream-of-consciousness amusement park, bounding merrily along at a pace that blurred the temporal distinction between fact and fantasy. That's Charles Fort in a nutshell, and it's not rocket science---he wrote for the sheer fun of it.

Charles Miller

8 Jun 1997

*I read your article in **The Skeptics Dictionary** on the Forteans. Back in the 1960's I read **Lo!**, by Charles Fort. Yes, I know, I'm dating myself. I found many of his theories patently absurd. Even a teenager (as I was at the time) knows we do not live on the inner surface of a hollow sphere! However, I was left with one burning question which I still have to this day. When a verifiable fact does not mesh with the commonly accepted scientific theories, why do scientists all too often brush it aside rather than examine it and re-evaluate their theories. For instance, though I have found theories as to how fish can be caught up in a water spout and later dumped in a storm well inland, I have heard no theory as to how grapefruit size rocks (of non meteorite origin) can rain out of a clear sky. It would seem no scientist is interested in such intriguing phenomenon.*

Perhaps it is ego. If I had been working for 20 years developing one theory, I don't know how much I would like any data to come along that would challenge my theory. Perhaps it is dogmatism. Just as religion resisted having its dogma challenged by men like Galileo, scientists, too, seem on occasion to

resent having their dogma challenged (except, perhaps by a Ph.D. in an appropriate scientific field).

reply: I have never been caught in a stonestorm on a clear day, so I can't speak for those who have, but I am sure there are NASA scientists working on this problem as I type. Seriously, where is the issue here? Are you suggesting that if non-meteoritic rocks fall from the sky, scientists everywhere head for cover to protect their theories? Theories of what? Gravity? If a rockstorm occurred, I don't see why any scientist would go back to the drawing board. The rocks could fall from airplanes. They could be of volcanic origin. Tornadoes, hurricanes, cyclones or gale force winds could have brought them there. On the Orkney Islands when a cow flies by the window, the islanders don't wonder how scientists are going to explain it. They marvel at the power of the wind.

You might have picked a better example, say, Alfred Wegener's theory of continental drift which was ridiculed by scientists when it was first proposed. I have already written on this subject (in [*Becoming a Critical Thinker*](#)) so I will just insert the relevant material here:

Wegener's idea that continents move was rejected by most scientists when it was first proposed. Stephen Jay Gould notes that when the only American paleontologist defending the new theory spoke at Antioch college (where Gould was an undergraduate at the time), most of the audience dismissed the speaker's views as "just this side of sane." [Stephen Jay Gould, *Ever Since Darwin* (New York: W.W. Norton & Company, 1979), p.160.] A few years later, all the early deriders of the new theory would accept it as true. Why? Was it simply a matter of Wegener and a few others jumping the gun by accepting a new theory before the evidence was sufficient to warrant assent to it? Were the latecomers 'good' scientists, waiting for more facts to confirm the theory? Gould's view is that dogmatic adherence to the view that the ocean floor is solid and unchanging was the main stumbling block to acceptance of the new theory. Most scientists rejected continental drift because it did not fit with their preconceived ideas about the nature of the earth's crust. They assumed that if continents did drift they would leave gaping holes in the earth. Since there were no gaping holes in the earth, it seemed unreasonable to believe that continents move. The theory of continental drift, says Gould, "was dismissed because no one had devised a physical mechanism that would permit continents to plow through an apparently solid oceanic floor." Yet, "during the period of nearly universal rejection, direct evidence for continental drift--that is, the

data gathered from rocks exposed on our continents--was every bit as good as it is today."

Continental drift was considered theoretically impossible by some, even if it were physically possible for continents to move. The new theory could not be made to fit the theoretical model of the earth then universally accepted. The theory of plate tectonics was then proposed--the idea that the continents ride on plates which are bounded by areas where new crust is being created from within the planet and old crust is falling into trenches. This provided a mechanism for explaining how continents could drift. Continental drift, according to Gould, came to be accepted not because more facts had been piled up, but because it was a necessary consequence of the new theory of plate tectonics.

More facts were piled up, though--facts for the new theory of plate tectonics, of which the theory of continental drift is an essential element. Now it is taken as a fact that continents move. Yet, the exact mechanism by which plates are moved is still incompletely understood. This area of science will no doubt generate much debate and theorizing, testing of hypotheses, rejection and/or refinement of ideas. It is, as Gould says, a good example of how science works. To someone who does not understand the nature of science, the early rejection of the idea of continental drift might appear to show how dogmatic scientists are about their pet theories. If scientists had not been so devoted to their belief that the earth's crust is solid and immovable, they would have seen that continents can move. That is true. But the fact that Wegener's theory turned out to be correct does not mean that he and his few early followers were more reasonable than the rest of the scientific community. After all, Wegener did not know about plate tectonics and he had not provided an acceptable explanation as to how continents might move. [Wegener argued that gravity alone could move the continents. Gould notes: "Physicists responded with derision and showed mathematically that gravitational forces are far too weak to power such monumental peregrination." Alexis du Toit, a defender of Wegener's theory, argued for radioactive melting of the ocean floor at continental borders as the mechanism by which continents might move. "This ad hoc hypothesis added no increment of plausibility to Wegener's speculation," says Gould. *ibid.*, p. 163.] It is true that the idea that the earth's crust is solid and immovable has been proved wrong, but Wegener didn't prove that. What the new theory could explain (about rocks

and fossils, etc.) other theories could explain equally well.

But, in the end, the idea of continental drift prevails. It prevails because the dogmatism of science--the tendency to interpret facts in light of theories--is not absolute but relative. What distinguishes science from pseudoscience is not that scientists are not dogmatic while pseudoscientists are. It is that scientists stand ready to give up one dogma for another should the evidence warrant it. Pseudoscientists refuse to give up their dogmas regardless of the evidence against them. [Gould notes with obvious admiration that a distinguished stratigraphy professor at Columbia University (where Gould did graduate work) who had initially ridiculed the theory of drifting continents "spent his last years joyously redoing his life's work." *ibid.*, p. 160. It is hard to imagine a comparable scene involving a pseudoscientist.]

The Wegener episode in the history of science demonstrates an essential difference between science and pseudoscience. That difference is to be found not in the correctness or incorrectness of proposed ideas, but in the method used to gain acceptance for the ideas. It is to be found only over time. It is not to be found in the personality of the theorizer nor in his dogmatic adherence to an idea. It is to be found in the pseudoscientist's dogmatic adherence to an idea for which there is contrary evidence or for which there is not, nor ever could be, any test in experience.

[from Chapter 9, "Science and Pseudoscience," in *Becoming a Critical Thinker* by Robert T. Carroll]

However, in spite of some of their nutty theories, Forteans, Scientific Creationists and other crackpots can serve a useful purpose. They can act as gadflies pointing out the inconsistencies in scientific theories and the areas where observed phenomena conflict with or are unexplainable by current theories. Of course, that would require enough intellectual honesty from the scientists to admit to the limitations of their theory, the willingness to explore the implications of those observed phenomena and the humility to accept criticism from non-scientist sources. Unfortunately, it would seem all three qualities are all too often lacking.

reply: a truly useful gadfly should be knowledgeable in the field he buzzes. Unfortunately, this is often not the case with non-scientists who criticize scientific theories. Most of the criticisms of crackpots will turn out to be useless. It would be unreasonable to expect scientists to take seriously every crackpot idea thrown at science. Progress is more likely if

criticisms are made by people who have some understanding of what they are talking about.

It would seem that some scientists have made almost a 'religion' out of science, just as some skeptics have made almost a 'religion' out of skepticism. An agnostic, for instance, is a truer skeptic than is an atheist or a Christian. An agnostic says maybe there is a god, maybe not. Convince me. An atheist or a Christian makes an a priori assumption and closes his mind to anything that conflicts with that assumption -- he is therefore not a skeptic (at least on that topic). A true skeptic has an open mind. A true skeptic would question Einstein as much as he would question Charles Fort or Billy Graham. But I assume you know that.

Andy Rugg

reply: I can't speak for all skeptics and atheists, but my skepticism regarding occult, paranormal and supernatural phenomena is based on experience, study, observation, argument, analysis and evaluation of evidence. My atheism is not an a priori belief nor a matter of faith, but is a reasonable belief given the evidence before me. There term 'skepticism', of course, has several uses. As an epistemological skeptic, I would agree that no one can know with absolute certainty whether God exists. I would also maintain that it is more probable that God does not exist than that God does exist. I guess I am not a "true skeptic." Being open-minded means being willing to examine issues from as many sides as possible, looking for the good and bad points of the various sides examined. Being open-minded does not mean that once one has studied an issue one is not to come to a conclusion about it. I'll conclude with another passage from *Becoming a Critical Thinker*.

Being open-minded does not mean that one has an obligation to examine every crackpot idea or claim made. I have spent years examining occult and supernatural claims. When someone says they've been abducted by aliens, but they have no physical evidence of their abduction, I feel no need to investigate the issue further. If their only proof is that they can't remember what happened to them for a few hours or days--a common claim by alleged abductees--then my hunch is that there is a natural explanation for their memory loss. For example, they're lying because they don't want anyone to know where they really were, or they passed out from natural or self-induced causes; they then dreamt or hallucinated. When someone claims to be God or to hear voices he says come from God, I assume he is mistaken or a fraud. Am I closed-minded? I don't think so. However, many years ago, when I heard for the first time about UFOs and alien abductions, I would have been closed- minded had I not investigated the matters. I have also studied many cases of people who claimed to be divine or reincarnations

of dead persons. So, when a young man in Texas who thinks he's a god shoots at federal agents, it neither surprises me nor does it instill in me any urge to investigate the man's divinity claim. Am I closed-minded? Again, I don't think so. Once a person has studied an issue in depth, to be open-minded does not mean you must leave the door open and let in any harebrained idea that blows your way. Your only obligation is to not lock the door behind you. If someone claims to have alien body parts or vehicle parts, by all means let's examine the stuff. If someone is turning water into wine or raising the dead by an act of will, I'll be the first to reconsider my opinion about human divinities.

An open-minded person who is inexperienced and uninformed will need to be willing to investigate issues that an experienced and informed person need not pursue. A critical thinker must find things out for herself, but once she has found them out she does not become closed-minded simply because her opinion is now informed! So, the next time you hear some defender of astral projection, past-life regression or alien abductions accuse a skeptic of being "closed-minded," give thought to the possibility that the skeptic isn't closed-minded. Perhaps she has arrived at an informed belief. It is also possible that the accuser is a con artist who knows that charging opponents with being closed-minded is often a successful tactic in the never-ending quest to separate a fool from her money. It is more likely, though, that the accuser is simply gullible and that his or her belief is based on wishful thinking rather than on a thorough examination of all the evidence.

[from Chapter 1, "Critical Thinking," in *Becoming a Critical Thinker* by Robert T. Carroll]

08 Sep 1997

I've been reading the Skeptic's Dictionary and found it to be pretty good so far - enlightening and entertaining.

Just one teeny weenie criticism - I thought you were a little harsh on Charles Fort and the Forteans. While I respect what you say about Fort's personal theories, his problem with "standard" scientists was they way they are so ready to discard data that does not fit their expectations. Just because something does not look right does not mean it should be discarded out of hand. (Obviously, you have to draw the line somewhere, if scientists chased

up **every* spike in their data they'd never get anything done).*

I'm an atheist, and consider myself to be an open-minded skeptic - that is, I'm happy to listen to anyone's point of view, but I won't accept it at face value. Having been a regular reader of the Fortean Times has actually strengthened this - the magazine celebrates the weird and wonderful, but doesn't expect you to believe any of it. The reader is left to make up their own mind. It encourages critical thinking by presenting the different viewpoints for a particular subject, from the rational to the absurd. Naturally, many people will go for the absurd explanation, but I think the majority will recognise the rational, or at least recognise the absurd for what it is (which is a good start, anyway). It's also extremely amusing to read what bizarre stuff people will believe, or will get up to because of their beliefs.

I feel that Forteanism (when combined with critical thinking) is a very healthy attitude. You learn that there are more than two sides to a story, it helps you recognise dogmatism and it trains you to look for alternative explanations (preferably the rational ones).

But apart from that, I love the dictionary! (well, love might be too strong a word. Like, maybe.)

You might like to cast a skeptical eye over my own scientific theories (though you'll need a /really/ open mind to take them seriously!).

<http://www.abarnett.demon.co.uk/theories.html>

And my atheism page at <http://www.abarnett.demon.co.uk/atheism/index.html>

*(I'd just started my own Fundy/Creationist Dictionary when I came across your **Skeptic Dictionary**. You beat me to it! Ah, well...)*

Cheers,

Adrian Barnett

reply: I've checked out Mr. Barnett's pages and recommend them, especially his page on the [Tooth Fairy](#).



[Charles Fort and the Forteans](#)

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philosophical materialism (aka physicalism)

Philosophical materialism (physicalism) is the metaphysical view that there is only [one substance](#) in the universe and that substance is physical, empirical or material. Materialists believe that [spiritual](#) substance does not exist. [Paranormal](#), supernatural or [occult](#) phenomena are either delusions or reducible to physical forces.

Materialists are not necessarily atheists, nor do they deny the reality of such things as love or justice, beauty or goodness.

See related entries on [Baron d' Holbach](#) and [naturalism](#).

further reading

- [Philosophical Materialism](#) by [Richard C. Vitzthum](#)
- ["Epicurus"](#), [Hobbes](#) and [Donald Davidson](#) in the Internet Encyclopedia of Philosophy

[Dennett, Daniel Clement. *Darwin's dangerous idea: evolution and the meanings of life* \(New York : Simon & Schuster, 1995\).](#)

[Dennett, Daniel Clement. *Elbow room : the varieties of free will worth wanting* \(Cambridge, Mass. : MIT Press, 1984\).](#)

[Dennett, Daniel Clement. *Kinds of minds: toward an understanding of consciousness* \(New York, N.Y. : Basic Books, 1996\).](#)

[Kurtz, Paul. *Philosophical Essays in Pragmatic Naturalism* \(Buffalo, N.Y.: Prometheus Books, 1990\).](#)

[Moser, Paul K. and J.D. Trout. *Contemporary Materialism : A Reader* \(Routledge, 1995\).](#)

[Sagan, Carl. *The Demon-Haunted World - Science as a Candle in the Dark* \(New York: Random House, 1995\).](#)

[Vitzthum, Richard C. *Materialism: An Affirmative History and Definition* \(Prometheus, 1995\).](#)

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reader comments:

freewill

20 Feb 2001

Your analysis of free will and moral responsibility there runs thus:

To have free will, one must to some extent comprehend and have control over one's own acts.* One is morally responsible for an act only to the extent that the act was freely-willed.**

However, this analysis rests entirely upon notions of comprehension and control that are left unpacked.

reply: True, but I am not writing for the *Journal of Metaphysics*. I leave a lot of concepts "unpacked." My goal isn't to write a definitive piece on "free will & determinism" but to give the reader some idea of where I am coming from in the many articles where these issues arise.

*What sort of 'control' do mechanical, completely determined*** organic systems like humans have that make them 'free'?*

reply: You may as well ask why call someone who is not in jail "free"? Or, why do we say that someone who thinks she can fly and jumps off a cliff was "not in control of her senses"? Why do we distinguish between accidentally kicking somebody and intentionally kicking him? To assert all are equally unfree and determined is to assert what is either unknowable or true by definition. To assert that there seems to be some difference in control of actions may need unpacking but it doesn't beg the question, as hard determinism does.

What sort of 'comprehension' could be a contributing cause of 'freely-willed' (but pre-determined) effects? And how does this sort of 'freedom' make fully pre-determined moral agents morally responsible for their actions?

reply: The will is an abstraction. To talk of comprehension as a *cause* of freely-willed effects is nonsensical. The rest begs the question. The issue is whether any of us at any time is responsible for his or her actions.

These loose strands (1) leave the compatibilist reader free (!) to rely on vague intuitions about a determined-and-yet-somehow-free-willed-and-morally-responsible-self, while at the same time (2) keeping the free will skeptic (c'est moi) in the dark as to just what it is you mean when you say, e.g.,

"Determinism is compatible with 'free will'"

Mike Drake

reply: Free will does not mean a volition free of all causal connection to the past. A person is free insofar as they are not constrained by internal or external factors. Nobody is absolutely free and the degree of freedom anybody has seems determined in large part, if not completely, by factors beyond one's control, such as genetic, environmental, social and historical factors. Some constraints hinder one's ability to comprehend things. Others hinder one's ability to control one's thoughts or actions. I may be wrong, but I think this is clear enough for most of my readers.

23 Jan 2001

Thank you for creating and maintaining this wonderful resource. The Skeptic's Dictionary is a lifeboat of reason in the vast deluge of nonsense. Your articles and recommendations for further reading have been a joy and an education (and, occasionally, ammunition). Among the items I particularly value are the links for young skeptics, and I have introduced my enthusiastic nine-year old daughter to them.

One entry that I would like to share some comments about is the article on free will. This is an area I have thought much about, though I lack your formal education in philosophy.

In it you state that, "To claim that to be truly free one must not be bound by laws of cause and effect is absurd and unnecessary." Certainly I agree with your contention that it is absurd, an action cannot both happen without a pre-existing cause and also be non-random. If the action has cause, the cause precedes the action and leads to it. If there is no pre-existing cause to initiate the action it is causeless and random. I find little room for even a theist to insert a miracle.

But I disagree when you add unnecessary. If actions are the product of pre-existing causes, then they are inalterable. Though my conscious mind has "the ability to understand and control my thoughts and actions" it does so based upon opinions, preferences, knowledge, capacity, and situation that are all products of causation. Any straying from that causation would generate a random thought or action, and that would still not be free will. If you are arguing that I can be said to have free will if my conscious mind has control over my actions, even though my conscious mind is acting solely as a complicated conductor of causation (pardon the alliteration), then you are working with a very weak definition of free will. A definition of free will that can encompass actions that could not have been altered or omitted by the actor seems in fact, absurd itself.

I think that if modern views are proceeding along this line, it is for one reason. You point to it when you say, "All our concepts of praise and blame, punishment and reward, depend upon our belief in human responsibility." People accept a poor definition of free will in order to maintain their flawed concepts of justice, morals and responsibility. It is an argument from adverse consequences.

Perhaps, instead of trying to balance some cosmic, spiritual, scales of justice, we should accept the rational materialist view of determinism and alter our view of punishment, reward and responsibility. These have always been, at their roots, tools for enforcing conformity in matters important to society. Maybe if we recognize this, we can transform some of our baser laws from ones based on intolerant traditions to ones based on actual needs of a free society. And maybe we can transform our current criminal justice system, which is based on retribution, to one based on scientific research into what will stop crime. If we focus on proven methods of deterring crimes and/or segregating criminal where shown to be needed, rather than revenge, we might actually be able to improve things--and those consequences would not be adverse after all.

Jeff Omalanz-Hood

reply: I don't deny that actions are the product of pre-existing causes, but I deny that that is *all* they are. Focus on previous causes makes us lose sight of the obvious fact that some actions are more free than others and some people are more free than others. To assume otherwise would, as you note, require us to abandon notions of praise and blame. No doubt we praise and blame people who don't deserve it because they really are not in control of their actions or really don't comprehend what they have done. Likewise, we probably don't praise or blame some people because we mistakenly think they are not responsible for their actions. Nevertheless, I think it is obvious from observing human behavior that there are degrees of freedom.

I'm doubtful that either the libertarian or the determinist will do significantly better than the other in improving the criminal justice system.



[free will](#)



reader comments:

psychoanalysis

17 Sep 1999

Dear sir,

As a psychology student I have to say that the skeptic definition of "psychoanalysis" in your dictionary is mistaken, to say the least. Maybe American psychoanalysts may use hypnosis, or try to "cure" schizophrenia (as if "regular" medicine could do it either), consider repressed memories and traumas the reasons for one's misfortunes (along with the many other misconceptions exposed there) but it's not like this in the rest of the world. [The author is from Brazil.] Maybe a deeper research in the works of Freud would be suggestible [?] (reading the originals would help).

reply: Maybe your reading of the entry is not quite accurate. I nowhere say or imply that American psychoanalysts use hypnosis. (It is well known that Freud used hypnosis early in his development of analysis, but gave it up because it is unreliable.)

The belief that psychoanalysis could "cure" schizophrenia died out decades ago. (This point is clear in the quote from Dolnick's book at the head of the entry.) But you do shock me by saying that psychoanalysts in the rest of the world do not consider repressed memories and traumas as a cause of "misfortune."

The tendentious writing found in the dictionary definition of psychoanalysis gets to the point of comparing psychoanalysis to scientology and resources itself into suggesting that psychoanalysis can't cure a broken bone (by the way, it's a good point to look at as doctors don't "cure" broken bones - they merely reduce unnecessary "symptoms" such as pain - but the bone itself heals up, with, without or despite the procedures of the doctor, but, as it's widely known, the relationship or confidence between doctor and patient helps speeding up the healing process, and making a very long story short, maybe you should take a look at the findings of doctor Robert Ader :

<http://www.urmc.rochester.edu/NeurosciGrad/fac/Ader.html> on the immunological system and depression - an induced depression, not a "genetic". The concept of cure doesn't exist in psychoanalysis, and I defy anyone showing real cure even in medicine (except for some very few exceptions, not possible by

any other means, while even a heart transplant is not a cure, it's a postergation [?], and we all know that the patient's quality of life has to be increased, or all will be lost). Try to cure a simple depression with Prozac and see what you get ("hide the baseball bat !!!") , and I mean CURE, not only making symptoms disappear, what seems to be the idea of "cure" for some doctors and some behavioral psychologists who may have never heard the word "methonymia", to say the least. If you could spare the time to take on some real research work, you could find yourself invited to many clinics around the world so as to check on their work. Furthermore, you could have a talk with some preeminent neuroscientists such as Antonio Damasio or Joseph Le Doux in order to have a "neutral" standpoint on psychoanalysis according to the latest findings in their fields. You could start by checking a site called "MEDLINE": <http://www.ncbi.nlm.nih.gov/pubmed/medline.html>, and searching for the topic "psychoanalysis and neuroscience" in order to read the most recent papers on the subject.

reply: I'm willing to grant that psychoanalysts don't cure anyone of anything.

We understand the feelings of anger towards psychoanalysis as it's a tried and tested form of therapy which returns a very good ratio of wellness to it's clients, despite all the attempts to prove it wrong (all said but nothing proved...and believe me, they have tried their hardest) all of the eulogies already made to Freud and it's findings, as it's said "the more obits declared, the more alive one is", or, as Mark Twain said "the rumors about my death have been greatly exaggerated"...all in all Freud is still alive and well, and experimenting some boosting thanks to the findings of the neuroscientists. Maybe one should read "a candle in the dark "by Carl Sagan to compare what he says about Psychoanalysis there with what he said in Broca's Brain...as a very intelligent man, he was able to change (also check Einstein's mail). I'm sorry if this email sounds a little too hard, but it's just that I would never expect intelligent people with such passionate blinding conceptions about something they have very scarce knowledge about, also, I think myself as a skeptic and I'm also an agnostic, while some skeptics aren't (well..one should read "The Future of an Illusion") so where does this leaves us ? It's ok to believe in something that is no more than a childish belief on nothing more than a wish (like Santa Claus) but it's wrong to take part on a scientific research of why we are the way we are - do we have double standards operating here ? I like the skeptical point of view, but it scares me to think that if they are not at all that well informed about this subject, it's only licit to thing the same of all the other topics.

Thank you.

Marcos Chimenti

reply: Sagan doesn't mention psychoanalysis in *The Demon-haunted World - Science as a Candle in the Dark*. He only mentions Freud to note that he

changed his belief about the cause of hysteria from *repression* of childhood sexual abuse to *fantasies* of such.

Sorry, but I don't have access to Einstein's mail.

01 Jun 1999

I have to say that I enjoyed many of the entries in your dictionary. There is too much sloppy thinking all about these days. I only found one entry rather irritating: the one on psychoanalysis. I agree that much of the psychoanalytic waffle is simply unreliable ad hoc theorising. This is bound to happen since a human life is a highly individual process and not an object that can be isolated from its environment.

That said it is no more proven that "mental illness" is caused by neurochemical disturbance than it is proven to be caused by the subject's experiences.

reply: I hope you are not insinuating that I think otherwise. Neurochemical imbalance can be caused by physical illness, diet, drugs, and certain experiences, such as extreme trauma, torture, or sleep deprivation. If the effects are long-lasting, and the person's behavior, thought processes or affective response is abnormal, the person, if diagnosed at all, is usually diagnosed as mentally ill.

The fact that a drug may make some one feel happy is not evidence that the lack of it (or it's effect) was the cause of their misery.

reply: That is true.

Much human suffering has its roots in a poor adaptation; that is, their model of the world doesn't serve them very well. The "mentally ill" are not simple victims of biochemistry. The failures of individual cognitive models are both individual and individually structured. It seems to be highly unlikely that a set of chemical aberrations could of them selves give rise to such specific and complex failures.

reply: You seem to suggest that being miserable or being unable to adapt to one's environment makes one "mentally ill." I disagree. If you are claiming that a delusional "model of the world" is simply a problem of adaptation, I think you're wrong. Maybe I don't understand what kind of "failures" you are referring to. However, a person may be unable to adapt to the world because of a brain disorder. Some brain disorders can be treated with medications that affect neurochemical production, reception or reuptake. The number of cases where this happens is too great to think it is an accident. For example, if a person with schizophrenia is hearing voices and a medication stops the voices, while stopping the medication brings the voices back, the likelihood that this is a problem of "adaptation" seems

negligible.

Aspirin may alter the sensation of pain but it doesn't alter the high level concept of what this pain means to me, so why would some other biochemically active substance alter an individual's individual concepts of his world?

reply: Why? Because medications such as [Clozapine](#), [lithium carbonate](#) or [Depakote](#), unlike aspirin, affect neurochemical production, reception or reuptake.

Neuroleptic medications may stop a schizophrenic's hallucinations by dulling down certain cognitive functions just as smashing the TV "gets rid of" bad programs. There undoubtedly are changes in brain chemistry involved in many "psychiatric disorders" but who is to say what is causative and what is mere correlation. There are real organic brain disorders which are an entirely separate kettle of fish. Autism cannot be bundled up with say schizophrenia or depression under the title of mental illnesses and treated as having common causes.

reply: Autism not only can, but is, "bundled up" with schizophrenia, bipolar disorder, depression, and other mental illnesses. See Bernard Rimland's *Infantile Autism* (1964). (Or see my review of [Madness on the Couch](#).) The fact that schizophrenia, autism, and bipolar disorder tend to run in families, even if those families do not all live in the same environment, indicates that the diseases are not likely caused by environmental factors.

Psychiatry and the dodgy medical science that go with it are not more valid than psychoanalysis as you seem to suggest. To compare the measurable fact of a broken limb to the psychological pain of "mental illness" is a profound injustice. There are no easy answers, drugs do not fix broken lives. Try talking to some "mental patients" rather than just reading books!

Mental illness is a misnomer, you have been misled, and you a philosopher too!

Alex Birkett

reply: Psychiatry has its share of pseudoscientific theorists and practitioners. I believe that biopsychiatry is not in the same league with psychoanalysis. Biopsychiatry may go overboard in its identification of all mental disorders with brain disorders or neurochemical imbalances that are biologically based in the same way as, say diabetes, is biologically based. But this science is correctable. Psychoanalysis has no way of weeding out errors, because it has no empirical checks besides purely subjective ones.

By the way, I have talked with mental patients, in addition to reading books on the subject. I have a great appreciation for the difficulties of persons who are psychotic at age three, not because of adaptive problems, but because of brain disorders. I know the anguish of parents who teens are suicidal because of the lack of control they have over their thoughts and actions, whose potent medications keep the voices away but do not "cure" them of their obsessions. These kids were not abused, except by Nature. Their adapting problems are an effect of their disorders, not a cause. Treating the effect by typical methods of disciplining, pleasure deprivation, physical punishment, kicking them out of school don't and won't help. Psychoanalysis would be about as useful as football practice or art lessons for these severely disturbed and *physically* diseased persons. I believe Dr. Freud would agree with me on this point. He did not think that psychoanalysis was useful for the treatment of psychotic disorders.

However, I agree that medication alone cannot help such people adapt to society. Special education and training programs, as well as community programs which involve local businesses and potential employers are also essential. Even cognitive therapy is appropriate in many cases. But not psychoanalysis.

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paraskevidekatriaphobia or friggatriskaidekaphobia

Paraskevidekatriaphobia is a morbid, irrational fear of Friday the 13th. The term was coined by therapist [Dr. Donald Dossey](#), whose specialty is treating people with irrational fears. He claims that when you can pronounce the word you are cured.

Paraskevidekatriaphobia is related to *triskaidekaphobia*, the fear of the number 13.

Superstition about Friday the 13th may well be the number one superstition in America today. The number 13 is considered especially auspicious, though it was considered a lucky number in ancient Egypt and China. There were 13 people at the Last Supper. And several mass murderers have 13 letters in their names: Charles Manson, Jeffrey Dahmer, Theodore Bundy. Of course, millions of people who haven't committed any murders, such as Robert Carroll, have 13 letters in their names, too. As far as I know, nobody has studied how many dinner parties with 13 present went off uneventfully. Witches, perhaps to clearly oppose themselves to a Christian superstition, sometimes have groups of 13 known as covens.

Some think thirteen owes its bad reputation to Loki, the Norse god of evil, who started a riot when he crashed a banquet at Valhalla attended by 12 gods.

Some cities skip 13th Ave., but not the city I work in: Sacramento has an intersection where 13th Street crosses 13th Avenue. Some buildings skip from the 12th to the 14th floor, which, of course, means that the 14th floor is actually the 13th floor.



The ancient Egyptians considered the 13th stage of life to be death, i.e., the afterlife, which they thought was a good thing. The Death card in a [Tarot](#) deck is numbered 13 and represents transformation. Those cultures with lunar calendars and 13 months don't associate 13 with anything sinister.

Friday may be considered unlucky because Christ is thought to have been crucified on a Friday, for that was execution day among the Romans. Yet, Christians don't call it Bad Friday. Friday was also Hangman's Day in Britain.

Some even think that Friday was the day God threw Adam and Eve out of Eden.

Friday is Frigga's Day. Frigga (Frigg) was an ancient Celtic (Norse) fertility and love goddess, equivalent to the Roman Venus who had been worshipped on the sixth day of the week. The Celts (Norse) worshipped Frigga (Frigg) on Friday and like the ancient Romans thought it a particularly good kind of day. Christians called Frigga a witch and Friday the witches' Sabbath; modern [Wiccans](#) are [happy to oblige](#). Some call fear of Friday the 13th *friggatriskaidekaphobia*.

Is Friday the 13th a particularly unlucky day? It could be...if you believe it is. Some prophecies are self-fulfilling.

See related entry on [numerology](#).

further reading

- [Why Friday the 13th Is Unlucky](#) by David Emery
- [Urban Legends: Friday the 13th](#)
- [Friday](#)
- [13th contestant doomed to be a Eurovision flop](#) by David Derbyshire, Science Correspondent, [Number Watch](#)

Dossey, Donald E. [Holiday Folklore, Phobias and Fun: Mythical Origins, Scientific Treatments and Superstitious 'Cures'](#) (Outcome Unlimited Press, 1992).

Radford, Edwin. [Encyclopedia of Superstitions](#) (Marlboro Books, 2000).

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[parapsychology](#)



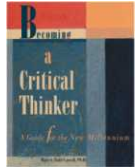
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[a Critical Thinker](#)

by Robert T. Carroll

the gambler's fallacy

The gambler's fallacy is the mistaken notion that the odds for something with a fixed probability increase or decrease depending upon recent occurrences.

For example, in California we have a state run gambling operation called *Superlotto*. The idea is to pick 6 numbers and match them to six selected from 51 numbers. Sounds easy. The odds of doing so? Here is what happens in a typical week. On July 25, 1998 the numbers were: 5, 7, 21, 32, 44, 46. The Jackpot was \$16,000,000. There were no tickets with all six numbers. 170 tickets matched 5 numbers and won \$1,588 each; 9,715 matched 4 of 6 numbers for \$72 each and 176,657 matched 3 of 6 numbers for \$5 each.

If you programmed a computer to randomly generate *six different numbers every second taken from the numbers 1 through 51*, you would have to wait nearly seven months before every combination came up at least once.

The odds of matching 6 of 6 numbers are 1 in 18,009,460; 5 of 6 are 1 in 66,702; 4 of 6 are 1 in 1,213; 3 of six are 1 in 63.

The odds of winning anything are 1 in 60.

If you buy 100 tickets a week, you can expect to win the jackpot on average every 3,463 years. If you buy \$25,000 worth of tickets a week, you can expect on average to win about every 14 years. If you expect to live 50 more years, you should buy \$6,927 worth of tickets a week if you want to have a good chance of winning the jackpot in this lifetime. Of course, if you do, you may not even break even. You could well be about \$2,000,000 in the hole, depending on when you win.

However, if you would be satisfied with getting 5 out of 6, you will have a much easier go of it. You are likely to get 5 out 6 every 12.8 years on average if you buy 100 tickets a week. However, you will have spent nearly \$67,000 to win about \$1,500.

If you want to "guarantee" yourself to be a "winner," buy about \$120 worth of tickets a week. On average, you are likely to take home, before taxes, about \$10 a week. Thus, to be a "guaranteed winner" you need only lose about \$110 a week. What could be easier? (This "guarantee" comes with a limited warranty of no value and is based upon payouts for the week of July 25, 1998.)

You might think that you can beat the odds by either selecting numbers that have not been chosen in recent drawings, or by selecting numbers that have

come up more frequently than expected in recent drawings. In either case, you are committing the gambler's fallacy. The odds are always the same, no matter what numbers have been selected in the past. This fallacy is commonly committed by gamblers who, for instance, bet on red at roulette when black has come up three times in a row. The odds of black coming up next are the same regardless of what colors have come up in previous turns.

Lotteries seem to share something in common with [illegal pyramid scams](#): in order for anyone to win big, many people must lose just about everything they bet.

(Note: None of the above math has any monetary value and has not been verified by our Statistician. Use at your own risk.)

See **related entries** on the [clustering illusion](#) and the [regressive fallacy](#).

further reading

[reader comments](#)

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Last updated 12/30/01



[Dr. Fritz](#)

[Ganzfeld experiment](#)



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reader comments:

gambler's fallacy

26 May 1999

I was fortunate to have read your essay on "The Gambler's fallacy" before I went to Reno on a gambling trip. I knew before going that "dice have no memory." I am also a hardcore skeptic. However, it is is easy for emotion to outweigh logic when gambling (it is for me at least).

I was playing craps and my friend and I noticed that 12 people in a row had not made their point (don't pass). My friend remarked, "it is time to make a huge bet on the pass line. There is no way 13 people in a row are going to not make their point." I agreed. My friend and I decided to put \$200 each on the pass line. My bankroll was \$500. Then I remembered your essay and immediatley stopped my bet and took my friend's chips off the pass line as well. "What the ___ are you doing!" shouted my friend. " Just wait," I replied. The shooter rolled a 12 on his first roll and we would have lost. Thanks for the essay. I saved \$200 and I got a free steak & lobster dinner from my friend. Also, I plan to buy your book and share some of my savings with you. Great job on the website! I spend hours there.

Steven Ashline

reply: What would you and your friend have done had the shooter rolled a "7"?



Uri Geller

"If Uri Geller bends spoons with divine powers, then he's doing it the hard way."

--James Randi

"Because a good magician can do something shouldn't make you right away jump to the conclusion that it's a real phenomenon."

--Richard Feynman



Uri Geller is a Hungarian/Austrian who was born in Israel and lives in England. He is most famous for his claims to be able to bend spoons and keys with his mind. Geller claims he's had visions and may get his powers from extraterrestrials. He calls himself a psychic and has sued several people for millions of dollars for saying otherwise. He has lost the lawsuits and a bit of money in his aggressive attacks on his critics. His arch critic has been magician James ("The Amazing") [Randi](#), who has written a book and numerous articles aimed at demonstrating that Geller is a fraud, that he has no psychic powers and that what Geller does amounts to no more than the parlor tricks of a [conjurer](#).

Geller has been performing for many years. The first time I saw him was in the late 60's or early 70's when he appeared on the Johnny Carson show. He was supposed to demonstrate his ability to bend spoons and stop watches with his thoughts, but he failed to even try. He squirmed around and said something about how his power can't be turned on and off, and that he didn't feel right. Others speculate that Randi conspired with Carson to change the spoons Geller would use, as there was suspicion that Geller likes to work (i.e., soften) his spoons before his demonstrations.

I have always been fascinated and puzzled by the attraction to Uri Geller. I suppose this is because nearly every one of our household spoons is bent and what I would like to see is someone who can *straighten* them out, with his mind or with anything for that matter. Likewise, with stopped watches. I have had several of those along the way and what I would have been amazed by would have been someone who could use his powers, psychic or otherwise, to make them start running again for good. (Even I can get my stopped watches to run again for a short while. A little movement is all that is necessary many times.) Thus, I must say that there is something magical about a person who has built a career out of breaking things.

Geller may have suffered defeat in the law courts but he says he is doing quite well in the world as a consultant for psychic detection. He even claims he is

being paid vast sums of money to use his special gift as a psychic geologist in search of things precious buried in the earth. He has even been tested by the great Puthoff and Targ, who deemed his remarkable gift as the "Geller effect." [For a detailed account of how easy it is to demonstrate incompetence and to commit fraud in this area, read James Randi's account of the Uri Geller experiments designed and executed by Russell Targ and Harold Puthoff of the Stanford Research Institute. See either chapter 7 of *Flim-Flam!* or *The Magic of Uri Geller*.] If you doubt his great powers or my account of them, you can read about them on the WWW by tuning in to Uri-Geller.com. The interactive part of his site is where you and I get to try to bend a spoon Geller has placed somewhere with a video camera on it, transmitting to his home page. Now this is what interactive computing should be about. People helping people. If you bend the spoon, you get a million dollars. I warn you, though, that if you are successful in bending Uri's spoon, you may have a difficult time proving your claim. You may even have to go to court to collect, but don't expect too much sympathy from judge or jury. Geller has been there and he knows what courts can do to people who claim they have psychic powers capable of bending tea spoons. He may publicly cast doubt upon your psychic powers, causing you great humiliation. You may sue him. But, remember; he's been there, done that, and he knows who will win. And he doesn't even have to use up any psychic energy to make that prediction.

Geller has also recently ventured into the lucrative New Age self-help/personal growth industry. For sale is his [Mind-Power Kit](#) for about \$30. The kit includes an audio tape, a crystal and a book with topics such as how to develop your [ESP](#), [dowsing](#), [crystal power](#), color therapy, and, of course, [telekinesis](#).

Many magicians do what Geller does, but they call themselves magicians or mentalists. Good magicians are good tricksters and good tricksters can fool the wisest of men. They can amaze people with their ability to seemingly move objects with an act of will, suspend objects in space, view objects which are remote, read your mind, predict the future, identify the content of hidden messages or drawings, etc. What is amazing is that they don't amaze people by winning the lottery or finding a cure for cancer. Why don't they bypass airports and paranormally transport themselves to their next gig? Why do they take their cars to a mechanic when it breaks down? Why do they waste their time moving a wire in a glass bottle instead of moving a waterfall over a forest fire? The answer is obvious. Such useful feats would require more than distraction and legerdemain. Why do the parlor tricks convince even very intelligent people that they have witnessed a paranormal event rather than a bit of magic? Because most really intelligent people are too foolish to realize that they are not so intelligent as to be beyond being fooled. One really intelligent person who would not be fooled was Richard Feynman, who met Uri Geller. Feynman said "I'm smart enough to know that I'm dumb." Feynman was intelligent enough to realize that a good magician can make it seem as if the laws of nature have been violated and even a great physicist

couldn't figure out the trick.

further reading

[reader comments](#)

- ["Geller Caught Red-Handed"](#) by Massimo Polidoro
- [Is Uri Geller for real?](#)
- ["Psychic Must Pay Skeptics Up To \\$120,000"](#)
- [Uri Geller Libel Suit Dismissed - Alleged "Psychic" Uri Geller loses libel suit against Prometheus Books](#)
- [Uri Geller in Detail](#)
- [Fortean Times: Uri Geller - A Sceptical Perspective](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books,1982\), ch. 7.](#)

[Randi, James. *The Truth about Uri Geller* , \(Buffalo, NY: Prometheus Books, 1982\).](#)

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reader comments:

Uri Geller

04 Jan 2000

I need to tell you what I saw on the biggest TV-channel here in Sweden, TV 4, on New Years eve. They had an interview with Uri Geller in London and he talked about how he would stop the clock Big Ben at 11 something at night.

The interview was absolutely uncritical and the comments were "wow, I wonder if he can really do that". They also showed him bending a key the reporter gave him, with his mind of course. (Or with a trick, more likely.) They did ask him a critical question, "what if you don't succeed"? And he replied that he was not a miracle worker so that might happen. He got his airtime, they showed some book of his about healing or something.

I'm not sure if he actually was able to stop the clock, but my guess would be no.
Anderz

reply: I think that would be a safe guess.

Geller's been promoting his book in the U.S., too. He even got a spot on [the Tonight show](#)! He's also got his lawyers looking into a Pokemon character who carries a bent spoon and gives people headaches, according to the [NY Post.com](#).

9 Jul 1998

Subject: Uri Geller- The Skeptic's Dictionary - Putting you on notice

Mr. Bob Carroll,

Without Prejudice

*This office represents Uri Geller. Your Skeptic's Dictionary on the internet was brought to our attention. Your placing Mr. Geller's name under the heading **Frauds & Hoaxes** is highly libellous [sic], defaming and damaging. You should have consulted your international libel lawyers, since libel laws vary from country to country. We have passed your Skeptic's Dictionary page over to our attorneys both in the USA and Europe for immediate action.*

Yours Sincerely

D. Robertson

CC: Richard W. Winelander, Esq. Baltimore, MD

Bob Foglenest Esq. New York, N.Y.

Gordon Hausmann, Curry CH. Hausmann Popeck solicitors, London

Ruth Liebesman Attorney at Law, New York

reply: Thank you for calling my attention to what has been called to your attention. I have consulted with my specialist in international libel law about false accusations of libel being libelous. I am informed that interpretations vary on this issue and that I should consult a good psychic instead of a lawyer. My psychic tells me that my filing clerk is responsible for this egregious error and should be made to do an internship at your office as punishment.

In any case, immediate action has been taken and the error has been corrected. Uri Geller is now listed under the heading of the Paranormal and the Psychic. Would it please you if I were now to list my own name under the heading of Frauds and Hoaxes?

**Yours with all the respect you are due,
Bob Carroll**

p.s. Please feel free to pass on this e-mail to your illustrious colleagues. Remind them of what happened [the last time Geller claimed someone libeled him.](#)

11 Jul 1998

Be careful man, he could do the same thing to you that he did to his soccer team!

Brent Slenker

reply: The following might clarify Mr. Slenker's comment:

29 Apr 1998

Glen Hoddle (a noted born again evangelical Christian), the England World Cup Team Soccer manager/coach is now forcing his players to visit an "official World Cup Faith healer" called Doris, in order for her to lay hands on injured and uninjured players. This is big news here in soccer crazed Britain and has been widely and relatively uncritically reported in the UK press, with the knowledge that England supporters are desperate to win the World Cup for the first time since 1966. Many commentators (who should know better) and the

general public seem to be going along with it. Hoddle has great "faith" in Doris and apparently has used her "powers for many years both as a player (he was one, if not the greatest English players in the late 80's/90's) and as a coach/manager. I'm sure you can glean more information from the net on other sites, particularly those to do with football/soccer/England.

To my knowledge Uri Geller has not been used by Glen Hoddle to dowse for goals for the England team though he has publicly announced his services to the England organisation on more than one occasion. He is however a rabid Reading FC fan and goes to all games, both home and away, providing his "para"services. Reading have just been relegated from the 1st (note: not the Premier League) to the 2nd division 2 weeks before the end of the season. He also provides his services to Swansea FC who are in the bottom 5 of division 3 and also struggling to fight relegation.

Tim Gregory

reply: Mr. Hoddle seems like a fine fellow. The [BBC reports](#) that he is suing Uri Geller for libel and malicious falsehood. [Hoddle's faith healer](#) may be called to testify that [it is false that Hoddle sought Geller's help](#). Over here we call these kinds of lawsuits "frivolous."

16 Mar 1998

I agree almost entirely with your analysis of Uri Geller. I don't however accept that he simply performs magic tricks, as to say this is an insult to magicians everywhere. In November 1997 I interviewed Uri in his home and watched him bend a spoon. Any magician that had to turn his back on his audience twice and leave the room altogether during the performance would be derided, yet this is exactly what Uri did. Performing magic tricks requires skill and dexterity. From what I saw, Uri has neither.

Mark Lipczynski

15 Aug 1996

Here in GB we have a weekly Radio programme where a Psychiatrist, Dr Anthony Clare, interviews a national celebrity. This week it was Uri Geller. Amongst the facts I did not know about Uri were that he was injured during the 6 day war, was sent to Catholic school despite the Judaism of his family and he has suffered all his adult life from bulimia. (Just like Di!). Also live on radio he used his mental powers to bend the car keys of the producer of the programme who had been rudely sceptical of his powers.

He is also a supporter of Reading United (a soccer club) and used his powers to such an extent that Reading had the worst record of any top flight English

soccer club. He blamed the failure of his power during one televised three-nil defeat on "the weather". Perhaps Britain is not the best place for him.

I would add that I have much personal affection for Geller having met him three times and enjoy his skills much more than those of David Copperfield et al.

Tom Peach

18 Dec 1998

I recently met Uri Geller on a promotional tour of a biography, and thought you would be amused to hear of a few of the things which happened.

I attended a book promotion of Geller's at Waterstones bookshop in Manchester, UK. He was there with his biographer, Jonathon Margolis, who claimed to be a 'profound skeptic' who was converted by demonstrations of Uri's powers. Hmm... Anyway, we heard of Uri's remarkable work for Mossad, the CIA (he forced the Russians to sign peace treaties with the power of his own mind no less), his encounters with aliens, his hope to rid the world of nuclear weapons by a collective use of the world's psychic consciousness, and verification of his powers by any number of scientists, including a publication in Nature.

Margolis related how his 'profound skepticism' was worn away by Uri's ability to bend spoons and how 'wierd things happened when he was around'. I particularly enjoyed it when Margolis revealed that now he too had the ability to bend spoons! All this was met by the gasps of an audience of which, I fear, my companion and I made up the total of skeptical attendees. Still, the free wine and food was plentiful and my mood brightened when I began to realise just how comically farcical the man really is.

His few attempts at demonstrating any powers were dismal. His spoon bending took place just a few yards from me. After a few moments he claimed a very small bend was appearing; a bend which I could not see, but some onlookers (including a few at the other side of the room) confirmed. At this point he apologised for being very tired and suggested that he could use some help. Pointing to the back of the room, he invited someone to assist his psychic powers. Leading them to the front of the room he started to rub the spoon again. However, during this brief distraction the spoon was not in common view and I was hardly surprised when he almost immediately demonstrated a visible bend in the spoon. Visible maybe, but done in anything other than a conventional manner? My skepticism remains.

At one point in the evening, a banging was heard to emanate from upstairs. Uri stopped talking, and left a few dramatic moments of silence before saying "I

hope that wasn't me". Ha! In a busy city centre bookshop, he was trying to take credit for sounds which could come from any number of sources. During the entire performance, a saxophonist was heard to be playing from the street outside but I note Uri didn't try to put that down to his psychic powers.

The best was yet to come. Uri invited questions from the audience. After a few fairly sycophantic questions Uri pointed at a young lady with her hand up, exclaiming 'Now, let's have a question from the skeptic'. His intention, I guess, was to demonstrate some psychic skill by guessing the woman's question. However, I could barely conceal my amusement when she replied "Actually, I'm not a skeptic, I just wanted to ask... Isn't it true, that at any one point, there are 76 different types of aliens on the planet?"

Getting annoyed, I asked him (and his biographer) why they didn't prove their powers by taking part in [the Randi challenge](#). Their replies were classic ad hominem. Randi was persecuting Geller, he was a magician and an illusionist, and therefore to be distrusted (the irony of it!), his challenge was both 'babyish' and 'unfulfillable', and the legal contract required by the challenge entitled Randi to all earnings of successful challengers!

I would have concluded that the man is just a harmless fraud but for a rather unsavoury event at the end of the evening. Unprompted, an elderly married couple stood up and related to all present of Uri's kindness in visiting their terminally ill son in hospital. Tragically, their boy died in a car accident a few weeks later. However, after the funeral, Uri phoned them and told them their son would contact them. This message came, they told us. It came when Uri asked them if they had any watches that no longer worked. Sound familiar? Upon examining an old watch, it miraculously started working. This was their son's message.

Entertaining people by tricking them into thinking he can bend spoons with his mind is one thing; misleading vulnerable and bereaved people is quite another. Anyway, that's Geller for you.

*I apologize for the length of this mail, but I felt I had to illustrate my experience of this man. Please keep up your good work. As Shakespeare said 'Modest doubt is the beacon of the wise'. **Daniel Poxton***



[Uri Geller](#)

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reader comments:

ghosts

07 Jul 2000

I am glad that I managed to stumble upon your web page, it is rare to see the voice of sanity and reason on the internet these days. I am a chemist by degree, a computer programmer by profession and I used to be a magician's assistant so I have quite a good insight into the scientific world and the world of entertainment through deception. It amazes me how otherwise intelligent and rational people can believe such nonsense.

Two little stories which you may find amusing...

When I was a magicians assistant I would often listen to the conversations of people after the show, I would hear them talk about what they saw and how they thought the tricks were done. Quite often they would mention that they saw things that I knew could not be true because I knew how the tricks were done. They would report him doing something with the floating silver ball that, if he did it, I would have been shocked. It just goes to show that people are not the most reliable of witnesses.

My wife was convinced that something was not right in the house because every time she ran downstairs in the basement she would hear drawers being opened and closed upstairs. I am not sure if she was convinced there was a ghost in the house or not but I did a little bit of investigation. First of all I ran with her and I could also hear the drawers being opened and closed upstairs. Then I stopped running where I could here the noise and waited. The noise occurred every time she ran towards one end of the basement. After a couple more runs I pushed on one of the basement doors and latched it properly and the noise stopped. It turned out that as she was running into the narrow part of the basement she was pushing air in front of her which was moving the not properly latched door just enough to sound like a drawer opening. The noise came from the top of the door and thus sounded like it was upstairs. I am convinced that if I was not there she would have come to the conclusion that there was a ghost in the house.

Ian

22 Nov 1998

Recently, while surfing the web, I came across a site which featured a web

camera aimed at the wall of an old building in my home town of Portland, Oregon. It had been placed there to see if the appearance of ghostly writing on the wall could be detected. It was alleged that the building had been built on the site of an old cemetery, but no address was given.

I immediately emailed the operators of the site requesting a specific location, and also asking them if they were aware that at one time there were numerous small cemeteries under what is now downtown Portland, and that many buildings could now stand on those sites (including one I used to work in). I further asked if they were aware that as the city grew, all these small cemeteries were closed and the bodies moved to a new, larger cemetery across the Willamette River in the mid-1800s.

All this information (including the locations of the original cemeteries) is readily available to anyone who requests information from the department which manages pioneer cemeteries in Multnomah County. The literature that is provided indicates that it is possible that some bodies were missed when the small cemeteries were closed, and there is no mystery to this; simply poor records and primitive if nonexistent embalming.

Funny-- NOBODY has responded to my message. I guess it's more fun to set up a web camera than it is to do a little historical research!

Keep up the good work,

**Roger Voeller
Portland, Oregon**



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glossolalia

Glossolalia is fabricated, meaningless speech.

According to Dr. William T. Samarin, professor of anthropology and linguistics at the University of Toronto,

glossolalia consists of strings of meaningless syllables made up of sounds taken from those familiar to the speaker and put together more or less haphazardly Glossolalia is language-like because the speaker unconsciously wants it to be language-like. Yet in spite of superficial similarities, glossolalia fundamentally is not language [Nickell, 108].

When spoken by schizophrenics, glossolalia are recognized as gibberish. In charismatic Christian communities glossolalia is sacred and referred to as "speaking in tongues" or having "the gift of tongues." In Acts of the Apostles, tongues of fire are described as alighting on the Apostles, filling them with the Holy Spirit. Allegedly, this allowed the Apostles to speak in their own language but be understood by foreigners from several nations. Glossolalics, on the other hand, speak in a foreign language and are understood by nobody.

Glossolalics behave in various ways, depending upon the social expectations of their community. Some go into convulsions or lose consciousness; others are less dramatic. Some seem to go into a trance; some claim to have amnesia of their speaking in tongues. All believe they are possessed by the Holy Spirit and the gibberish they utter is meaningful. However, only one with faith and the gift of interpretation is capable of figuring out the meaning of the meaningless utterances. Of course, this belief gives the interpreter unchecked leeway in "translating" the meaningless utterances. Nicholas Spanos notes: "Typically, the interpretation supports the central tenets of the religious community" [Spanos, 147].

Uttering gibberish that is interpreted as profound mystical insight by holy men is an ancient practice. In Greece, even the priest of Apollo, god of light, engaged in prophetic babbling. The ancient Israelites did it. So did the Jansenists, the Quakers, the Methodists, and the Shakers.

See related entry on [xenoglossy](#).

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[ghosts](#)



[gods](#)

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xenoglossy

Xenoglossy is the alleged speaking or writing in a language entirely unknown to the speaker. The probability of this happening is about zero.

See related entry on [automatic writing](#) and [glossolalia](#).

further reading

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Last updated 02/03/03



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[God on the Brain By
Liz Tucker BBC
Horizon 3/20/03](#)

gods

Gods are beings created by humans and given supernatural powers or attributes such as immortality, omniscience, [telekinesis](#), and invisibility.

These creations serve many purposes, such as imaginary protection from enemies or explanations for the origin of such things as good and evil, fire and wind, or life and death.

Gods are often the central figures around which religions are built. It is often claimed that religion began in fear and superstition. The same might be said for gods.

Some religions maintain that there is just one God and that all the gods of all religions except theirs were created by human beings. Yet, everyone who believes in a god of some sort believes their god is real.

Since gods are supernatural, they exist outside the bounds and laws of space and time. They can possess any of an infinite array of magical powers. Hence, there is no way to prove or disprove their reality. One might say: If gods exist, anything goes!

See **related entries** on [atheism](#) and [theist](#).

further reading

[reader comments](#)

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- [Persinger, Michael. *Neuropsychological Bases of God Beliefs* \(Praeger Pub Text., 1987\).](#)
- [Spinoza, Baruch de. *Theologico-Political Treatise* \(1670\).](#)
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[Pseudoscience
applied to scientists
3/26/03](#)

[Lie Detector Roulette](#)

By **Brendan I.
Koerner**
November/December,
2002 Issue *Mother
Jones*

[Polygraph Testing
Too Flawed for](#)

[Security Screening](#) -
press release from the
National Research
Council regarding
their 18-month study

[Read the whole
report](#)

[Lie-Detecting
Devices: Truth or
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Ariana Eunjung
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[Thermal camera
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[Brain scans can
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Scientist) November
12, 2001

polygraph ("lie detector")

**"I don't know anything about lie detectors other than they scare the hell out of people."
--Richard Nixon**

A polygraph is an instrument that simultaneously records changes in physiological processes such as heartbeat, blood pressure, and respiration. The polygraph is used as a lie detector by police departments, the FBI, the CIA, federal and state governments, and numerous private agencies. The underlying theory of the polygraph is that when people lie they also get measurably nervous about lying. The heartbeat increases, blood pressure goes up, breathing rhythms change, perspiration increases, etc. A baseline for these physiological characteristics is established by asking the subject questions whose answers the investigator knows. Deviation from the baseline for truthfulness is taken as sign of lying.

There are three basic approaches to the polygraph test:

1. **The Control Question Test (CQT).** This test compares the physiological response to relevant questions about the crime with the response to questions relating to possible prior misdeeds. "This test is often used to determine whether certain criminal suspects should be prosecuted or classified as uninvolved in the crime" ([APA](#)).
2. **The Directed Lie Test (DLT).** This test tries to detect lying by comparing physiological responses when the subject is told to deliberately lie to responses when they tell the truth.
3. **The Guilty Knowledge Test (GKT).** This test compares physiological responses to multiple-choice type questions about the crime, one choice of which contains information only the crime investigators and the criminal would know about.

Psychologists do not think either the CQT or the DLT is scientifically sound, but a majority surveyed by the [American Psychological Association](#) think that the Guilty Knowledge Test is based on sound scientific theory and consider it "a promising forensic tool." However, they "would not advocate its admissibility [in court] in the absence of additional research with real-life criminal cases." One major problem with this test is that it has no controls. Also, unless the investigators have several pieces of insider information to use in their questioning, they run the risk of making a hasty conclusion based on just one or two "deviant" responses. There may be many reasons why a subject would select the "insider" choice to a question. Furthermore, not responding differently to the "insider" choices for several questions should not be taken as proof the subject is innocent. He or she may be a sociopath, a

psychopath, or simply a good liar.

Is there any evidence that the polygraph is really able to detect lies? The machine measures changes in blood pressure, breath rate, and respiration rate. When a person lies it is assumed that these physiological changes occur in such a way that a trained expert can detect whether the person is lying. Is there a scientific formula or law which establishes a regular correlation between such physiological changes and lying? No. Is there any scientific evidence that polygraph experts can detect lies using their machine at a significantly better rate than non-experts using other methods? No. There are no machines and no experts that can detect with a high degree of accuracy when people, selected randomly, are lying and when they are telling the truth.

Some people, such as Senator Orrin Hatch, don't trust the polygraph machine, even if used by an expert like Paul Minor who trained FBI agents in their use. Anita Hill passed a polygraph test administered by Minor who declared she was telling the truth about Clarence Thomas. Hatch declared that someone with a delusional disorder could pass the test if the liar really thought she was telling the truth. Hatch may be right, but the ability of sociopaths and the deluded to pass a polygraph test is not the reason such machines cannot accurately detect lies with accuracy any greater than other methods of lie detection.

The reason the polygraph is not a lie detector is that what it measures--changes in heartbeat, blood pressure, and respiration--can be caused by many things. Nervousness, anger, sadness, embarrassment, and fear can all be causal factors in altering one's heart rate, blood pressure, or respiration rate. Having to go to the bathroom can also be causative. There are also a number of medical conditions such as colds, headaches, constipation, or neurological and muscular problems which can cause the physiological changes measured by the polygraph. The claim that an expert can tell when the changes are due to a lie and when they are due to other factors has never been proven. Even if the device measures nervousness, one cannot be sure that the cause of the nervousness is fear of being caught in a lie. Some people may fear that the machine will indicate they are lying when they are telling the truth and that they will be falsely accused of lying. Furthermore, even the most ardent advocate of the polygraph must admit that liars can sometimes pass their tests. One need only remember the spy [Aldrich Ames](#), who passed the polygraph test several times while with the CIA. This lesson was lost on the FBI, however, who started requiring polygraph tests of its employees after spy [Robert Hanssen](#) was caught. Heretofore, the FBI had only used the polygraph on suspected criminals. Apparently, the FBI thinks that they could have prevented Hanssen's betrayal if only he had been made to take the polygraph.

In California and many other states, the results of polygraph tests are inadmissible as evidence in a court of law. This may be because polygraph tests are known to be unreliable, or it may be because what little benefit may be

derived from using the polygraph is far outweighed by the potential for significant abuse by the police. The test can easily be used to invade a person's privacy or to issue a high-tech browbeating of suspects. Skeptics consider evidence from polygraphs no more reliable than testimony evoked under [hypnosis](#), which is also not allowed in a court of law in California and many other states. Also, in 1998, the U.S. Supreme Court argued that Military Rule of Evidence 707, which makes polygraph evidence inadmissible in court-martial proceedings, does not unconstitutionally abridge the right of accused members of the military to present a defense (United States, Petitioner v. Edward G. Scheffer).

The American Civil Liberties Union strongly supported the passage of the Employee Polygraph Protection Act of 1988 (EPPA) which outlaws the use of the polygraph "for the purpose of rendering a diagnostic opinion regarding the honesty or dishonesty of an individual." The EPPA doesn't outlaw the polygraph across the board, however. Federal, state and local governments can still use the polygraph. The federal government can give polygraph tests to government contractors involved in national security projects. In the private sector, security and pharmaceutical firms can still use the polygraph on current or prospective employees. Furthermore, any employer can administer polygraph tests

...in connection with an ongoing investigation of an economic loss or injury to his/her business on these conditions: The employee under suspicion must have had access to the property, and the employer must state in writing the basis for a reasonable suspicion that the employee was guilty ([ACLU](#)).

The ACLU supported the EPPA not only because of the lack of evidence for the accuracy of the polygraph, but because of abuses related with its administration, including, but not limited to, the invasion of privacy.

For example, in order to establish "normal" physiological reactions of the person being tested, "lie detector" examiners ask questions that purposely embarrass, frighten and humiliate workers. An ACLU lawsuit in 1987 revealed that state employees in North Carolina were routinely asked to answer such questions as "When was the last time you unintentionally exposed yourself after drinking?" and "Who was the last child that got you sexy?" Polygraphs have been used by unscrupulous employers to harass union organizers and whistle-blowers, to coerce employees into "confessing" infractions they did not commit, and to falsely implicate fellow employees ([ACLU](#)).

Why would so many government and law enforcement agencies, and so many

private sector employers, want to use the polygraph if the scientific community is not generally convinced of their validity? Is it just [wishful thinking](#)? Do the users of the polygraph want to believe there is a quick and dirty test to determine who's lying and who's not, so they blind themselves to the lack of evidence? Perhaps, but there are other factors as well, such as *the esoteric technology factor*. The polygraph machine looks like a sophisticated, space-age device of modern technology. It can be administered correctly only by experts trained in its arcane ways. Non-experts are at the mercy of the high-tech, specially trained wizards who alone can deliver the prize: a decision as to who is lying and who is not.

Another reason for the polygraph's popularity is *the pragmatic fallacy factor: it works!* Case after case can be used to exemplify that the polygraph works. There are the cases of those who failed the test and whose lying was corroborated by other evidence. There are the cases of those who, seeing they are failing the test, suddenly confess. What is the evidence that the rate of correct identification of lying corroborated by extrinsic evidence is greater than the rate of identification of lying by non-technological means? There isn't any. The proofs are anecdotal or based on fallacious reasoning such as thinking that a correlation proves a causal connection.

On the other hand, it is possible that one of the main reasons so many government, law enforcement and private sector employers want to use polygraphs is that they think the test will frighten away liars and cheats who are seeking jobs, or it will frighten confessions out of those accused of wrongdoing. In other words, the users of the machine don't really believe it can detect lies, but they know that the people they administer it to *think* the machine can catch them in a lie. So, the result is the same as if the test really worked: they don't hire the liar/cheat and they catch the dishonest employee.

further reading

[reader comments](#)

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- [Aldrich Ames letter to Aftergood](#)
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- ["The CQT Polygrapher's Dilemma: Logico-Ethical Considerations for Psychophysiological Practitioners and Researchers"](#) by John J. Furedy, University of Toronto
- [11th Circuit Court of Appeals, US vs. Gilliard on admissibility of polygraph to support claim of innocence](#)
- ["The Psychophysiological as Innocent Bystander: Ethical Mismatch"](#) by Robert J. Barry
- ["Truth or Consequences" -A polygraph screening program raises questions about the science of lie detection](#) by Tim Beardsley
- [How to Sting the Polygraph](#)
- [Laboratory for Scientific Interrogation - Scientific Content Analysis](#)
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Last updated 03/30/03



[Pleadians](#)

[positive-outcome bias](#)



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reader comments:

graphology

9 Nov 2000

Robert:

Hilarious reading about how handwriting does not reflect a person's personality. The arguments presented conveniently do not explain what handwriting represents.

It's either something or nothing.

It can't be nothing by empirical conclusion. Therefore, it must be something.

I would suppose you would think an EKG pattern was of the same ilk. Just a meaningless pattern.

Some facts to ponder plus a challenge:

The brain is scientifically based because it is an organized system of repeatable functions called logic. That's what directs people's choices. Otherwise, it would be chaos. If you say, bunk, tell me how we could have developed the sciences without a scientifically based brain. The fact is that everything in the universe is scientifically based, which of course includes your brain.....and handwriting.

Handwriting is brainwriting. You should know that. Personality is in the brain. You should know that. Therefore, handwriting must reveal personality. And, as it turns out, many other things also like the physical condition of the writer.....to a degree. It's not an x-ray.

You know: $A=B$, $A=C$, $B=C$.

The "studies" you or whoever cite were performed by inexperienced graphologists many of whom I am quite aware. Your evaluators, not being experienced or knowledgeable, had no idea how poorly schooled these analysts had to have been. Did any of the analysts have 20 years experience?

As an engineer for 36 years, I can tell you I would not have been analyzing handwriting for 23 years if there was nothing to it. But, again, you or whoever, fail to explain the significance of handwriting. And, that is very telling. It takes

a long time to understand and gain insight into handwriting.

I was skeptical of handwriting when accidentally exposed to it. Wrote it off. Then investigated and realized it's tremendous significance. I can honestly tell you that what you write about handwriting analysis is totally incorrect. Beyerstein and the rest of those "skeptics" are simply not designing their protocols correctly because they have no REAL knowledge of handwriting or handwriting analysis.

Doesn't it strike you that this subject has been around for centuries, studied by scientists and some of the most intellectually acute people and continues? Universities throughout the world teach it and bestow degrees. These people are not stupid. They apparently can see what you cannot or inadequately test for.

The principles of Questioned Documents (forgeries) you seem to accept. But the principles are exactly the same for graphology. And, whether you realize it or not, when a document examiner is analyzing a document he/she is actually "looking" at their personality similarities or non-similarities. I do both.

Since I am short on time, this is the challenge. If you believe handwriting means nothing, then you should not be reluctant to submit a three page sampling of your handwriting on UNLINED paper for analysis. Signed and a copy of your drivers license with your signature on it for verification that the handwriting is yours.

Send to:

*Handwriting Analysis Inc 15740 Rockford Road Suite 220
Plymouth, MN 55446*

I predict you will not submit it out of fear of facing the fact that handwriting analysis is real and is, in fact, the most powerful psychological tool we have.

**Jack Cammarata
President Handwriting Analysis Inc.**

reply: Jack, you seem to be a logical person, though your reasoning seems a bit peculiar in places. For example, you say that personality is in the brain and therefore handwriting must reveal personality. This begs the question, Jack. Where is the evidence that the brain determines one's personality and one's handwriting in such a way that when one writes, one's handwriting reveals one's personality? We all know that in a trivial sense this is true: one's writing has content and that content can reveal aspects of one's personality. Given the fact that I have over 400 articles and several hundred comments posted on the Internet, my personality is an open book, so to speak.

Or do you propose to uncover aspects of my personality that even I am not aware of? If so, how do we determine whether you are right?

I have another proposal. I would like to submit to you a handwriting sample of a subject you know nothing about. I will have the subject copy three pages of a foreign language text, so you will not be given any hints about the subject from the content of the writing sample. You give me a list of personality traits that you think you can identify by graphology. I will work with the subject to determine which traits accurately describe him or her and send that list to three persons chosen by me. These persons will agree not to reveal to you the personality traits listed. You will then submit your analysis to these persons and they will determine how accurate you are. I will publish on my Skeptic's Dictionary site your analysis and their analyses of your analysis.

What do you say, Jack?

Here is Jack's reply:

Robert.

Your proposal sounds like what is going on in Florida. I know nothing of who you will "use" in this study and, frankly, knowing your subconscious "goal", I do not trust this proposal.

You may already "know" something of handwriting and have the writer try to deliberately confuse as would be the case in questioned documents.

Besides, you want a person who knows nothing about the foreign language being used to copy a text????? Obviously, you know nothing about handwriting or handwriting analysis. That is completely absurd. The writer cannot possibly execute spontaneously the unknown language of another system and would confound the display to support your ends. I presume this is the way you have determined that handwriting analysis does not work. Shame, Bob. A scientific investigator using such a ruse.

Further, you have not indicated, as is normal for skeptics, what handwriting means. There is constant avoidance of the issue.

It is interesting you say "trivial" sense. If you mean content, you are totally wrong as that is what is not used to analyze. You say you have 400 articles. There are thousands of other proponent articles which I am sure you are aware of but decline to articulate. Your proposal is simply a neutralizing tactic to avoid having your (angular) handwriting analyzed.

Is there anyone in your "group" that knows anything about handwriting or

handwriting analysis?

You say personality and handwriting (located in the brain) combined do not indicate a demonstration of major personality characteristics. Well then, I guess the "personality brain" and the "handwriting brain" are two different brains when we know the tremendous interaction of all the major brain areas are required to execute such an intricate display. Empirical evidence from thousands of observers over time plus the irrefutable concurrence by persons in your general peer group indicate an overwhelming recognition of handwriting properties.

What you are saying is "If it walks like a duck and looks like a duck, by golly, it isn't a duck." Saying so doesn't make it so.

If people followed your line of logic we would still be debating whether Einstein's notable equation was real. They proved it by accurate demonstration which is what handwriting analysis has accomplished time after time. Once a person seriously studies handwriting and its ramifications, it becomes quite clear the personality inferences that are possible. You must be aware of the elusiveness of the brain's nature making it one of the most difficult systems to analyze and that is where, I think, you have a problem.

Apparently you may not have reviewed the Handwriting Research Corporation's Manual of validity studies. You should do so.

I will not be part of this preposterous proposal. There is no control by HAI. And, how do we know your "analysis" is correct?

So, Robert, tell us what handwriting means.

Jack Cammarata

reply: Jack, you are very nimble and very quick, but I don't think your wick is burning very brightly. I avoided being too critical of your first letter, for fear I would scare you off, but I see I was worried about nothing. I don't think you are going to understand what I have to say, but here goes anyway.

You make a lot of assumptions and seem unaware that you are doing so. For example, you assume that handwriting must be representational. Handwriting (as a verb) is using one's hand to write. Handwriting (as a noun) is the product such writing. It need not be representational. One can write out a list, some notes, a letter, a book. You assume that since the brain is involved in writing and is a major determinant in one's personality that when one writes one's personality is represented. You do not understand that you need to prove that. Let me explain. Your personality is affected by the people you are around. You do not act the same in front

of your spouse, your children, your siblings, your buddies, strangers at a bar, a foreign dignitary, the pope, colleagues, etc. You will seem to be a different person to each of these people. Why? Because you act differently around them. You assume that none of these personalities is your "real" personality, but that underneath all these behaviors is some other layer of reality, the real person. Non-sense. You are the sum of all these different, even contradictory, behaviors. The foul-mouthed fellow who tells racist and sexist jokes to drunks at a party is the same fellow who appears to be a feminist saint to his daughter. There is no real you hiding in the subconscious mind, as you seem to think. The point is that everyone's personality is full of inconsistencies and contradictions. You don't have a different handwriting for your mother, your buddies, your colleagues, your priest, your colleagues, your president, etc. Yet, you have a different personality for each of them. Your handwriting could not possibly reflect your personality, or more accurately, your personalities.

You seem to have no sense of purpose when you fill up space saying things like 'it must be something or nothing and it's not nothing so it's something.' Do people pay you to respond with such gibberish?

Your comparison of handwriting to an EKG illustrates your ignorance. An EKG is a machine's response to physiological processes. Handwriting is a person's activity or product of that activity. Handwriting is not a response to a stimulus, as the EKG is. It is a conscious act (most of the time). The patterns of an EKG are meaningful because there is an agreed upon standard which allows us to read them. You graphologists have no agreed upon standard by which to read the patterns of handwriting and what's more you have no way of deciding whether any of you are uttering anything but sophisms and gobbledygook. You may refer to your *Handwriting Research Corporation's Manual of validity studies*, but the rest of the sane world laughs at your manual as nothing but arbitrary ramblings.

Your claim that *The brain is scientifically based because it is an organized system of repeatable functions called logic* is gibberish. You may think it is meaningful, but it is just patter. You say *That's what directs people's choices. Otherwise, it would be chaos.* You are right about predicting what I would say: bunk! But I say bunk because it doesn't make any sense. You say *tell me how we could have developed the sciences without a scientifically based brain. The fact is that everything in the universe is scientifically based, which of course includes your brain.....and handwriting.* We call this circular reasoning where I come from. The brain is scientifically based because everything is scientifically based. Therefore, handwriting is scientifically based. I think too many years of engineering has short circuited a few of your wires, Jack.

However, you did say at least one correct and meaningful thing in your first letter: handwriting can sometimes reveal something about a person's physical condition. A physician will sometimes ask a patient on certain

medications to give them a writing sample in order to see if they can detect any shakiness in the writing. And it doesn't take an expert to detect a flamboyant egomaniac or a self-conscious person with very low self-esteem from the size of their signature. But your ramblings about scientific brains are about as scientific as a wolf howling at the moon.

You say *As an engineer for 36 years, I can tell you I would not have been analyzing handwriting for 23 years if there was nothing to it.* **But putting in time is no guarantee you haven't wasted all of it, Jack. Many deluded people devote their lives to their fantasies and delusions. Their sincerity and devotion for dozens of years does not transform their endeavors into anything significant.**

You continue: *But, again, you or whoever, fail to explain the significance of handwriting. And, that is very telling. It takes a long time to understand and gain insight into handwriting.* **But Jack, you are the one who must show that handwriting is significant. And spending a long time trying to understand it doesn't guarantee anything.**

You say: *I can honestly tell you that what you write about handwriting analysis is totally incorrect. Beyerstein and the rest of those "skeptics" are simply not designing their protocols correctly because they have no REAL knowledge of handwriting or handwriting analysis.* **Jack, it is your job to provide evidence and arguments, not simply assert that you are the only one who truly understands and who truly knows how to design a proper test and who truly has real knowledge of things great and small. You are begging the question, Jack--assuming what you should be proving.**

Finally, Jack, you seem to live in some sort of fantasy world. Maybe because you own the company your employees pretend the emperor is wearing clothes, but some of your claims seem out of touch with the planet I live on. For example, you say *Doesn't it strike you that this subject has been around for centuries, studied by scientists and some of the most intellectually acute people and continues? Universities throughout the world teach it and bestow degrees. These people are not stupid. They apparently can see what you cannot or inadequately test for.*

What universities throughout the world offer a course in graphology? Where on our home planet can you get a degree in graphology? Lots of professions have been around for centuries, Jack. That doesn't make them any more respectable.

True handwriting analysts--[forensic or questioned document examiners](#)--are not analyzing personalities, Jack. They don't make ridiculous claims about being able to detect pedophiles by their handwriting. They don't claim to be able to tell when a person is lying by his handwriting. They don't claim to be able to tell whether a person is honest by his handwriting,

or whether he or she would make a good employee or is likely to abuse drugs. Only [pseudoscientists](#) make such claims, Jack. And graphology is a pseudoscience.....oh, I forgot.....it can't be since it comes from the brain and the brain is scientific, so pseudoscience must be scientific. Right, Jack?

Jack replies:

14 Nov 2000

Bob, your wick is out. Your pseudologic is laughable. Apparently you do not have an engineering background where reality lives. What is your background, Bob?

Anyway, there are many world universities conferring degrees which I will research and give you a list in a later email.

Regarding physical condition of a person. I have been doing that for 20 years. Nothing new, Bob. Where do you suppose the "information" came from to reveal these "conditions". Hmmm?

Also, questioned documents. In analyzing for forgeries and the known, one is using the exact same principles used in a profiling. The QDE is actually assessing the personality against the forgery. You know nothing about this business and have no insights. Saying we all have multiple personalities would make a psychologist cringe. What nonsense. These are behaviors which could only be "used" by a functioning brain not one with brain damage. That does not change the basic personality. Your mother's handwriting has not changed and neither has her personalityunless she changes behavior which is not the same as personality. Da!

You made no mention of the angularity word. Do you know what that means? How many possible strokes are there?

Also, you made some mistakes in your email which leads me to believe you are/were quite emotional writing it.

Finally, until next time, conveniently you dodge the question as to what handwriting means and throw the responsibility to proponents. That we have done by demonstration. Let's see your handwriting.

Will communicate later. Need to do business

Jack Cammarata

reply: Really? Are you a scatologist as well?

More from Jack:

As I promised, here is the list from an international association. As you probably know much of the original research work was performed in Europe. We (you) are still quite a bit behind as demonstrated by your last email.

reply: [note: Jack sent me something copied from an unidentified source, labeled 4. Training. It lists a large number of individuals or outfits that offer some kind of instruction in graphology. There aren't many universities listed, but there are some. For example, there is [Lumsa](#) in Rome and the university at [Urbino](#). There is the Naftali Institute in Israel, where graphology is very big. Also listed are Universidad de Valencia, Spain; Università di Porto, Lisbon, Portugal; Emerson University College in Buenos Aires, Argentina, and a few others in Italy. So, Jack is right about graphology being taught at some universities. But I couldn't find any listed from the U.S.A. Maybe there is hope for our country after all!]

Now, the rest of the story.

Einstein's formula was proven by demonstration. And, so has handwriting analysis. You can demand as many "tests" as you want but unless one can demonstrate by practical use the efficacy of any system saying something does not work is stupid, plain and simple.

In design engineering, all the concepts, drawings and talk mean nothing unless you can prove a concept works by demonstration. And, that has been done. Period.

Your ridiculous analogy about behaviors in front of various people is froth with error. You say the handwriting does not change but the behavior does. True. But that does not mean that the person has multiple personalities. My word, MULTIPLE PERSONALITIES???? Psychologists would go crazy with that statement. If that were true, there should be different handwritings for each behavior (or was it personalities, Bob?). There aren't. You're goofy, Bob. Fuzzy logic.

It just means that the intellect being as acute as it is will simply adjust BEHAVIOR, not basic personality characteristics like dominance, ego strength, analytical ability and the like. There is no way you are going to change that barring brain damage or severe onset of psychological circumstances such as clinical depression and then that is only for a short time. I know. I was there.

You sure were very emotional writing the last email having repeated phrases without checking and proofing plus other errors. I suspect that is the same emotionality you use in your logic also. Pretty bad, Bob.

You are so bent into this skeptic thing (which does have relevance but not in

handwriting analysis), that you can't see the forest for the trees. Having spent years debunking handwriting analysis there is no way you could admit error. I understand that. Too bad but that's what happens when the logic system is flawed.

(You say you are the sum of all your behaviors.)

Yet, there are behaviors which people haven't even used yet. So, does that mean they have "invisible" behaviors/personalities (which is it, Bob?)? No. It simply means they have not used their intelligence (creativity to you, Bob) yet to create whatever "other" behavior is engendered. In the case of a Down Syndrome person, there is one "behavior" and therefore only one possible handwriting. No multiples, Bob. How do you explain that??

An EKG IS a response to a stimulus which is ongoing. Your misunderstanding that graphologists have no standards is rationale on your part to defend your erroneous stance on you know what. If you could only "see" how ignorant you "look" to those who understand handwriting you would crawl into a hole and disappear. Pure ignorance or simple purposeful denial. The latter is suspected.

Funny how law enforcement uses handwriting analysis, Bob. The CIA, Interpol, Scotland Yard, Bob.. But we do not need any endorsements from them to prove it works.

Scientifically based. Repeat. Everything in the universe is scientifically based. Circular reasoning. Yes sir, you sure are going in circles. And, the brain is scientifically based because of what I indicated. Which makes handwriting scientifically based also. I think your apparent attempt to be the originator or at the forefront of this "skeptic" group has gone to your head. You have no more intelligence than those who acted in the movie "Planet of the Apes" and tried to deny the astronauts ability to speak and think better than they.

If you were living during Galileo's time you would have been the one insisting "the earth is flat" because he could not prove it EXCEPT by demonstration.

You are wrong about signatures which shows your ignorance again, Bob. Also, you are indirectly admitting that handwriting (signatures) reveals something about the personality. (You missed that boo boo, Bob. That's a contradiction in your argument.)

I submit that it is YOU who have wasted your time and effort trying to debunk handwriting analysis. I have verification everyday whereas you only have your "buddies" with hollow minds and no creative investigative qualities. You people are totally ignorant of relevance and have no real knowledge of handwriting or handwriting analysis. (And, avoid doing so for fear that you may discover you are incorrect.) Right, Bob?

Again, Bob, demonstration is the BEST proof and always has been of any system. We have proven it over and over through practical application and studies (which you people will not ever accept as it would prove you wrong.) You HIDE behind the reasoning that it is US who must prove it. Well, we have. Period. Now it's up to you to disprove it. Good luck as you will never accomplish it.

The principles of questioned documents are the same as for handwriting analysis. The principles are evaluated for different purposes but essentially the personality of the writer is being examined and compared to the "forger". Your ignorance is so blatant, Bob. Your trying to hide behind innuendoes and word attacks that bounce off like water off a duck.s back. Why? Because I have the everyday proof and you have no proof.

If there ever was a pseudo group it's yours Bob. At least for handwriting analysis. You can do tarot cards and horoscope denials but you are totally ignorant and, frankly, stupid about handwriting analysis.

You must a young fellow just learning and trying to make a name for himself. Do you actually go out and preach that handwriting analysis is bunk?? Shame, Bob.

I think you need to obtain a new disguise. One that would fit the movie. You are simply not a good investigator.

Maybe you should sign up at one of the Universities. There are others besides those listed from what I am told.

Contact Handwriting Research Corporation and ask them for their Manual so you can study what they have done. If you are not familiar with their million dollar computer system you should be. Think they would spent that much for handwriting analysis if it didn't work, Bob? Let's see what you have to say about that, Bob. But you won't do it because you are afraid of the truth. Right, Bob?

Don't bother replying as I do not want to corrupt my computer logic. I just wanted to see your "thinking?" on this subject. Myopic.

Happy denials, Bob.

15 Nov 2000

First a big thank you for the valuable resource that you have provided. I am a regular visitor to the site and have now perfected my thoughtful, intelligent look as I pass off much of your insight as my own in discussions with the more 'spiritual' people down the pub.

Just a quick note in response to to the ramblings of Jack Cammarta (readers comments - Graphology). I believe that he betrays his simplicity of approach when he states that -

"The brain is scientifically based because it is an organized system of repeatable functions called logic."

and

"Handwriting is brainwriting".

I hope that I am not being unfair to Jack in selecting these two remarks, but it is my understanding that Jack is attempting to portray a direct mechanistic correlation between brain function and output in the form of handwriting. He seems to believe that an engineering background qualifies him to quantify this correlation. Of course handwriting is a result of brain function, but to assume an understanding of cause and effect is quite a leap.

As it happens, the brain does not appear to operate as a deterministic machine let alone a logical machine. This observation stems from the mathematician Gödel's proof that any formal system is either inconsistent or incomplete. This limitation applies to all existing and theoretical computers (including theoretical quantum computers), but the method of proof has shown that this limitation does not apply to human reasoning. (I know this sounds a bit metaphysical, for a full explanation I would recommend 'Shadows of the Mind' by Roger Penrose and 'Gödel, Escher, Bach' by Douglas Hofstadter'). This is just one example of how the complexity of the brain currently precludes description. An engineering background does not enable anyone to map personality to different styles of handwriting, engineering methodologies are simply not applicable and to pretend otherwise is dishonest. Graphology can never be an exact discipline. Personalities are complex, subjective, unquantifiable and unique, giving a 1-1 mapping between personality and handwriting.

I am puzzled as to why anyone would pay for the services of a graphologist. Broad grouping into personality traits can provide little information about a person, especially when Jack points out that a person's behaviour is separate from their personality. If so much can be claimed for the analysis of static writing, surely more information can be gleaned from real time interaction with a person. I would be more concerned with the behaviour of a prospective employee than with the hidden personality trait that only Jack and his ilk could 'discover'.

Troy Craze
Cornwall, England

15 Nov 2000

Just a short note to tell you how much I enjoy your site. I found Randi's site a couple of months ago and after reading through that, I found a link to your site. What a great site this is. Not only are your entries interesting and informative, but the readers comments section is just a scream.

Your exchanges with Jack, the graphology expert, had me laughing out loud. Especially his reply to your challenge. It was exactly how Randi describes challengers who are interested in the \$1,000,000 challenge react when they hear the ground rules. How these people insist on others believing claims they themselves refuse to even try to prove is amazing.

I don't know how you have the patience to respond to so many e-mails, but I for one, am very glad that you do.

Lori

12 Mar 1999

Your report on graphology has a good side and a bad side. The good side is that you were very clear with the message that graphology is unproven and highly redolent of bunkum. The bad side is that you turned this into a liberal political screed [?]. Without getting too deep into discussions of civil rights and how that meaning has been distorted over the past few decades, let me point out that an employer has rights too. When we make a political statement that "there ought to be a civil right not to be discriminated against on the basis of handwriting", we're saying that we wish to take away the right of the employer to hire according to criteria that he or she deems proper- and he or she is the one laying out the money and taking the risk. Many (I am one) have the view that people ought to have the civil right to spend their money as they please, and that that civil right does not terminate when one is buying the time or expertise of another. Should I not have the right to exercise whatever arbitrary criteria I wish when I hire a doctor? Or an attorney?

Whether or not using graphology in hiring decisions is a stupid idea is certainly appropriate fodder for a skeptic to discuss. What the legal implications ought to be is a political discussion, not amenable to skepticism. A more cogent explanation of the view of employer's rights and the harm that comes from legal interference with those rights can be found in Thomas Sowell's "Knowledge and Decisions".

Stuart Yaniger

reply: I'm afraid you have me here, Stuart. I have no idea whether legal implications and political discussions are amenable to skepticism. I do know, however, that the Constitution of the United States guarantees certain rights, regardless of what you or I think about them. If you are a

hospital administrator, you are forbidden by law to have a hiring policy that illegally discriminates against applicant doctors. If by "hire a doctor" you mean going to one, then of course you are free to make your selection by discriminating in any way you choose. You could even ask a potential doctor to give you a writing sample to take to a graphologist (or perhaps you are a graphologist and could do the analysis on the spot).

21 Jul 1998

Just wanted to let you know how much I appreciate your remarks about graphology. I've found that a distressing number of people assume there must be "something to it" without thinking about it at all. Let me share an anecdote regarding my brush with graphology:

When I graduated from college in 1986 with a degree in chemistry, I went to an employment agency, which got me an interview with a local paint company I'll call FooBar Paint. The unusual thing was, they asked me to submit a handwritten essay about my hobbies before they would schedule the interview. I complied with this request, and a few days later was told they would not interview me since they had determined some unspecified character flaw through graphological analysis.

I was livid, of course -- Both because they had dismissed me without even talking to me, and they had been dishonest in failing to tell me what they planned to do with my essay. I wanted to do something, but I was an impoverished and unemployed 21-year-old. Unable to hire an attorney, I contacted the Seattle Human Rights department, who was very interested in my story. SHR filed suit against FooBar, and subpoenaed all of their documents regarding hiring policy. We were suing for a job and back pay. It was quite a heady feeling.

Two days later, I got a phone call from the president, Mr. FooBar himself, asking me to come in for a personal interview. Mr. FooBar wanted to "set things straight" as it was costing him time and money to comply with SHR's document subpoena. When I got to his office, he explained that graphology was their preferred method of determining who fits into the "FooBar mosaic," as he put it. I explained that this was a totally unsubstantiated method, and asked him why he didn't employ witch doctors or use a magic 8-ball to determine a candidate's fitness. He had no answer for that, instead offering me a job if I'd drop the suit and take another handwriting test. Apparently, one of the qualities FooBar likes in its "mosaic" is unmitigated gall.

I ended up dropping the suit after FooBar twisted in the wind for a while. I had to get on with my life, and the best I could get was a job working for those clowns. Still, I felt I had made my point.

I sincerely hope that people refuse to take workplace pseudoscience lying down. If this type of "new age" employer is given free reign to evaluate people on graphology, I Ching, auras, or whatever, they'll just keep doing it.

There wasn't that much at stake in my case, but there could have been much more if my circumstances were different. People need to educate themselves about pseudosciences like graphology, so they might have the conviction to stand up against it as well as the facts to win the fight.

Mike Cummings

26 May 1998

*First of all, let me just say that your **Skeptic's Dictionary** is one of the most comprehensive skeptical resources on the web, and I enjoy it a lot. I wish to contribute to your dictionary with my 17-year-old brother's brush with graphology, which I hereby give you permission to post on your web page, if you see fit.*

My brother is a skeptic, and subscribes to the Skeptical Inquirer. When his aunt and her two daughters told him that they found this AMAZING graphology "expert" and that he simply MUST have his handwriting analyzed by her, he decided to turn it into an experiment. He repeatedly asked his aunt whether the content of the writing matters to graphology, or whether it is (supposedly) "content free" and takes into account only the handwriting itself. Of course, he was reassured that he can write anything he wants, since all that matters is the shape of the handwriting. So he agreed to give my aunt a writing sample of his handwriting, to be analyzed by the graphologist.

As his writing sample, he deliberately wrote a page or two that looked as paranoid and schizophrenic as he could possibly make them--that he is hearing voices, that he wants to kill his parents, that he was abducted by aliens... you name it, it was there. Needless to say, two days after he told me about this little experiment, my aunt called my mother in total hysteria. As was to be expected, the graphologist "discovered" that my brother was showing signs of "paranoia," that he needs "immediate psychological treatment," and that this better be done SOON, before he kills someone.

The poor graphologist was so distressed that contrary to her regular custom she called my aunt late in the evening with the "horrible news" and they even discussed whether to call the police, but luckily for my brother they decided to call the little paranoid's mother first. This little experiment almost lead to a serious family feud, since my aunt could not comprehend WHY my mother was laughing so hard on the other side of the phone after hearing such terrible things about her son.

Why am I not surprised?

Avital Pilpel.

16 Mar 1998

*Just a short note on the content of your **Skeptic's Dictionary**. While I agree with most of your arguments, like most of these perpetrators, your arguments are lacking proof and scientific method. For example, in graphology, you state that there is no sound theoretical basis for it. That is an unsupported finite statement.*

reply: "an unsupported finite statement"? I've been accused of many things, but this is the first time I've been accused of making an unsupported finite statement. In fact, this is the first time I've ever been accused of making a *finite* statement, period. It sounds dangerous. What is it?

I think most of my readers would understand that what I mean is that those who practice graphology and defend it as a way of determining personality do not provide an adequate theory which would explain how people all over the world who are taught many different writing techniques and who bring to their writing their own personal quirks and eccentricities, would universally follow the same personality laws which allegedly govern handwriting. In fact, graphologists seem particularly uninterested in providing a theoretical basis for their work. If, however, you know of a theory which is generally accepted by graphologists which explains how it works, I would love to hear it so I could evaluate it.

Where is the proof that no theories exist? What did your research show and what were your research methods? (These are rhetorical questions.)

reply: I suppose it is bad form to respond to a rhetorical question; however, your calling it one doesn't make it so. Your question is a real question. It may even be a real *finite* question, for all I know. My research method is called *reading*. I have read the works of graphologists and while they are quick to establish all kinds of rules governing particulars of writing and personality traits, they do not seem concerned with providing a theory for graphology. But perhaps I am ignorant of the universally accepted theory among graphologists. Again, if you know of it, please send it to me so I can evaluate it.

Further, in the lie detector snippet, you explain how a polygraph works. What happened to galvanic response?

reply: As a person of your superior vocabulary must know, 'galvanic' refers to the production of electric current. For the record, though, the polygraph does measure, via electric current, various physiological

processes.

Your document is no better than the claims of the scammers. You offer very little definitive proof against these topics. Your arguments are loaded with authoritative speech whereby a reader is supposed to believe you because of who you are, not what is presented. Why not trying to back up your claims with scientific method. For the lie detector, conduct a study where known questions are purposely answered incorrect. With graphology, a similar study.

reply: thank you for the suggestions. However, I think you are making them to the wrong person. The one who should be conducting studies are the graphologists and polygraphers. You would think it would be a fairly simple thing to demonstrate the validity of both graphology and the polygraph. Why hasn't it been done, then?

I'd like to believe your arguments as you have covered the spectrum of bunk operations, but without sufficient proof, I am left feeling the same way as having read Tony Robbins' web page: Scummy. This is not intended to be a critique of you personally. Just your scientific methodology. Thanks for the entertainment though.

Chris Gebhardt

reply: you're welcome. I'm glad you at least have a sense of humor and get a kick out of feeling scummy. This is unusual, but any port in a storm, I guess. This is another first for me: being compared to Tony Robbins. Though I did have a student once proclaim that the first session of one of my introductory philosophy classes was "just like est!"

27 Oct 1997

Excellent job! It's about time somebody debunked some of the nonsense people are walking around with in their heads.

I have a great deal to say about your take on G-d and belief, but that's for another time.

Re: your entry on graphology. The practice of having a graphologist check your handwriting prior to employment is extremely common here in Israel. Many employers will accept only handwritten resumes.

David (Jerusalem)

08 Apr 1997

On handwriting analysis, I was always fascinated by the idea of knowing

people's characters by the loops and swirls of the writing. However, as a left-hander, I wonder how accurate that can be. I had to teach myself to write since the teacher had no experience teaching lefties. Now, I wonder how anybody's character could be discerned by handwriting. The question of disability is also not addressed. Senator Dole comes to mind. How could anyone tell his character from his writing? He has only the use of one arm, and had to be retrained to use his left hand. The only thing about his character that can be found from his writing is his war injury.

Virginia Carper

05 Jul 1996

Reviewing a student's paper (I teach human resources at a university in Atlantic Canada) on graphology, I was searching the web for information and ran across your site. The student's paper was light on skepticism and high on reported success (100's of companies in France, the US, Israel-- and "I'm sure lots in Canada but they don't report it") and I was gearing up for a full frontal rebuttal about validity.

Your item on graphology is a good basis for our discussion--focused, challenging. Thanks. I'll dip into more of your items.

Tony Dearness



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Mass Media Bunk

6

July 17, 1998. "Revealing Penmanship - Handwriting analyst offers insight into potential employees," by Dave McNary, *Los Angeles Daily News* (distributed by the Associated Press and reprinted without comment in [The Davis Enterprise](#)). The article is a promotional piece for Sheila Lowe, "one of the nation's most prominent experts in the field" of [graphology](#). Lowe hires herself out to companies hoping for some magical way to determine if an applicant is likely to be reliable, honest, motivated, able to get along with fellow workers or customers, etc. Lowe eliminates the costly and timely process of the thorough interview, the detailed background check, etc. Instead, she does a "personality analysis" of the applicant based on a handwriting sample. Her fee ranges from \$95 to \$250. She also peddles a computer program to do the analysis. It sells for \$395 and is being bought especially by human resource specialists and psychotherapists, according to McNary.

There is no evidence that graphology is a valid instrument for evaluating character traits, yet employers in Europe and Israel, for example, commonly use graphologists. The practice is apparently growing in the U.S. According to McNary, there are hundreds of graphologists in Southern California and there are two organizations that certify graphologists (the International Graphoanalysis Society in Chicago and the American Handwriting Analysis Foundation in San Jose, California).

Lowe admits that what she does is "fairly intuitive" rather than scientific, which makes it difficult to challenge her results. If she says that your handwriting reveals that you are basically dishonest, what recourse do you have? Should you bring in another graphologist who will testify that your handwriting actually reveals that you are scrupulously honest, so honest that you might appear to be dishonest?

No evidence is given that Lowe has passed a fair and impartial test of her ability to accurately assess character by analyzing handwriting. Graphologists routinely fail such tests. Her accuracy is vouched for by the [testimonial](#) of Cheryl Nichols, who hired Lowe to evaluate employees of her accounting firm. Says Nichols: "Sheila's been spot-on about her evaluations." Such [subjective validation](#) is typical of the kind of support given in lieu of scientific validation for [pseudosciences](#) such as graphology. Lowe may be as good as most personnel managers in picking good employees, but graphology may have nothing to do with it. For example, she is quoted as saying: "I'm always looking for red flags, such as someone being extremely sarcastic." Evaluating the *content* of a writing sample is not evaluating the *handwriting*. In fact, "in properly controlled, blind studies, where the handwriting samples contain no content that could provide non-graphological information upon which to base a prediction (e.g., a piece copied from a magazine), graphologists do no better than chance at predicting...personality traits...." [[The Use of Graphology as](#)

[a Tool for Employee Hiring and Evaluation \]](#)

July 20, 1998. "Science Finds God," *Newsweek*, by [Sharon Begley](#). This article is primarily a soapbox for the [argument from design](#), still attractive to certain romantic minds, including eminent scientists such as [Allan Sandage](#). Three skeptics are mentioned. Carl Sagan is quoted as saying that since the laws of physics alone could explain the universe there is "nothing for a Creator to do." Nobel physicist Steven Weinberg's 1977 pronouncement is passed on: the more the universe has become comprehensible through cosmology, the more it seems pointless. And [Michael Shermer](#) is quoted as saying "Science is a method, not a body of knowledge" and science "can have nothing to say either way about whether there is a God." (For the record, I would say that science is both a body of knowledge and a set of logical and empirical methods, and science has a lot to say about God, though science is irrelevant to proving the existence of any non-empirical entity.) Most of the article has a reasonable, though hardly newsworthy, point: science and religion need not be opposed to one another. In short, one can believe in God without being a fundamentalist with a two-digit I.Q. and one does not have to be an atheist to be a scientist.

The author will probably be attacked by the Christian right, who think anyone who believes in the big bang and evolution is on the same path to hell as the sodomites. But she gives comfort to the New Age "energy" folks who think that quantum mechanics means anything goes. That light can appear as both wave and particle is taken to support the possibility of the Incarnation (the divine and human nature joined in one person, Jesus Christ). One physicist turned theologian (Robert John Russell) thinks that quantum mechanics "allows us to think of special divine action," i.e., miracles without violation of the laws of physics. Sure, but can quantum mechanics explain turning wine into water? Frankly, I like the old-time religion with its magical miracles. It has a kind of charm that seems lacking in the overintellectualization of religion.

June 29, 1998. "Inside Business," a weekly section in the *Sacramento Bee*, contains an article touting the wonders of magnetic therapy. Under the guise of an investigative report on an invention and its business potential, the article by Dale Kasler describes how a bankrupt building contractor, Rick Jones, is trying to cash in on the current boom in alternative therapies. He has formed a company called Optimum Health Technologies, Inc. to market his "Magnassager."

Magnets are especially hot right now among those seeking alternative ways to relieve pain or improve their golf game. Terry Gage, the company's marketing director says "we're here at the right time. People are looking for this type of product. Traditional medicine isn't answering everything." So true. There's probably never a wrong time to enter the alternative health care market, but right now seems especially attractive. *Newsweek* recently featured an article by Ellyn E. Spragins proclaiming "the days when alternative medicine meant quackery are waning" ("How to find the right doctor for alternative care," June 29, 1998). (See below for more about this gem.) Spragins cites an "alternative-care credentialing company" called Landmark Healthcare to support her claim that "nearly half of the adults in this country dabbled with unconventional therapies last year." That's a lot of dabbling, although how scientific this statistic is may be as spurious as many of the claims of the practitioners

Landmark Healthcare credentials.

Nevertheless, even if somewhat less than half of us are dabbling in alternative therapies, the market is huge and easy to exploit with the right gimmick. Right now magnets are the gimmick of choice of chiropractors and other "pain specialists." Mr. Jones hopes to cash in with his hand-held vibrator with magnets retailing for \$489. Jones claims his invention "isn't just another massage device." He says it uses an electromagnetic field to help circulate blood while it's massaging the muscles. *Bee* staff writer Kasler comments: "That's particularly noteworthy at a time when the use of magnets is gaining acceptance among [chiropractors](#), [massage therapists](#) and [health professionals](#)." Kasler's lack of skepticism is understandable since his job is to write positive pieces promoting local business ventures. Many readers, however, may not realize that journalists are often little more than vehicles of free publicity for potential advertisers and clever entrepreneurs who know how to manage the media. The final paragraph of the article should be a tip-off to the careful reader. It is a quote from Optimum Health's vice president of finance: "We need more capital to really ramp up. We're one of those hungry companies looking for people to invest."

Kasler notes that Jones already has spent about \$300,000 of a single investor's money. Where was the money spent? Not on [double-blind controlled tests](#), which not only would be easy to devise and implement, but would quickly determine whether there is any significant difference between the Magnassager and other vibrating massage devices. No, the money was spent on "product development and marketing." How do we know the magnets have anything to do with the alleged benefits from the Magnassager? We are told that "a massage therapist" told Ms. Gage that the Magnassager "is easing the pain from carpal tunnel syndrome." We are told that Jones spent \$20,000 to have the product evaluated by a physiologist "to make sure that it was not gimmicky." That's it. What did the unnamed physiologist do? We are not told. But we are assured by Jones that "the product is real" and that the company plans to have more extensive evaluations done later this year.

The greatest laugher of the article is a quote from Ms. Gage, the marketing director of Optimum: "The real challenge of our marketing is to educate the public."

(note: The most recent issue of the *Skeptical Inquirer* (July/August 1998) features an article by James D. Livingston, author of [Driving Force: The Natural Magic of Magnets](#). The article is called "Magnetic Therapy: Plausible Attraction?" Livingston teaches at M.I.T. in the Department of Materials Science and Engineering. Outside of testimonials to the effectiveness of magnets to have permanent therapeutic effects, most of which can be attributed to "placebo effects and other effects accompanying their use," there is almost no scientific evidence supporting magnetic therapy. One highly publicized exception is a study done at Baylor College of Medicine that claims magnets reduce pain in post-polio patients.)

June 29, 1998. *Newsweek* promotes alternative therapies in a section called "Focus on Your Health," with headings of "Patient Power" and "Frontier Medicine." The article, "How to find the right doctor for alternative care" by Ellyn E. Spragins, is especially deceptive since it mixes promotion of alternative therapies with advice to be skeptical because of the lack of research and regulation. Spragins describes nontraditional medicine as "still a mix of the good, the bad and the outlandish" and

gives advice on how to select the good. Her advice? Contact the [Office of Alternative Medicine](#), [Andrew Weil's](#) site, and the [Rosenthal Center for Complementary and Alternative Medicine](#) at Columbia University. Ms. Spragin does advise letting your traditional physician know of any alternative treatments you are using and recommends checking credentials and learning how many hours of training it takes to get credentialed. She quotes James Dillard, medical director for alternative medicine at Oxford Health Plans: "If anyone tells you they can cure a wide variety of ailments at a very high success rate, you should turn around and get the hell out of there." On the other hand, Spragin refers to "the new respectability" of alternative medicine and makes claims like "A supernaturopath is likely to know the best massage therapists or acupuncturists in the area." A "supernaturopath"?

No mention is made of skeptical resources such as

- [Quack Watch](#) - Dr. Stephen Barrett
- [The Expanded Dictionary of Metaphysical Healthcare: Alternative Medicine, Paranormal Healing, and Related Methods](#) by Jack Raso, M.S., R.D.
- [National Council Against Health Fraud](#)
- [Health Frontiers Center for Quackery Control, Inc.](#)
- [The American Council on Science and Health](#)
- [HealthCare Reality Check](#)
- [The Scientific Review of Alternative Medicine](#)
- [A Trip to Stonesville: Some Notes on Andrew Weil \(1998\)](#) Arnold S. Relman, M.D.

Needless to say Spragins makes no mention of the [alternative health](#) or any other entry in [The Skeptic's Dictionary](#).

May 14, 1998. *NBC* announces plans to do a [miniseries on Noah's Ark](#).

April 15, 1998. *The New York Times* reports, as did many other news agencies, that "Reactions to Prescribed Drugs Kill Thousands Annually, Study Finds." The study appeared in *Journal of the American Medical Association*. The news will no doubt bring smiles to the "alternative" medicine folks. To say the least, the news is misleading. Dr. Bruce Pomeranz, professor of neuroscience at the University of Toronto, claims that more than 100,000 people a year die in American hospitals from adverse reactions to medication. His conclusion is not an inference from a large prospective study, but rather is based on a meta-study, a method which lumps together a number of studies whose samples are small and whose significance varies. The authors of the study emphasized that its conclusions should be viewed with caution, but caution is a word the mass media no longer seems to recognize. The study did not examine a representative cross section of the hospital patient population. Most of those in the study came from large teaching hospitals with the sickest patients, where there is more drug use and where higher rates of drug reactions would be expected than in smaller community hospitals, according to Dr. David Bates, an associate professor of medicine at Harvard University who wrote an editorial in the journal about the study. The average person who is taking prescription drugs should not be frightened by the results of this study.

April 4, 1998. On March 21, 1998, the *Sacramento Bee* displayed a picture of an egg standing on end and reported "Credit for this balancing act goes to ... the equinox." Bob Callahan of Chico, CA, knew better. Today, Callahan's letter to the editor was published: "This is a persistent cultural myth and a great example of bogus science. Nothing occurs during the equinox that allows an egg to stand on end any better than on any other day. Think about it: The myth is essentially claiming that there is some change in the nature of gravitational force on that day. The bogus reasoning is that an equalizing of day and night causes an equalizing of gravitational forces. That no one at The Bee was able to reason this through and that many readers accept this blatant falsehood is ample evidence that we need to improve the quality of science instruction."

further reading: [Tom Burns \(Columbus Dispatch\): Spring egg myth tough to crack Sunday, March 12, 2000](#)

reader comments

Fri, 24 Mar 2000

You state that an egg will not stand on its end at the equinox because "The myth is essentially claiming that there is some change in the nature of gravitational force on that day. The bogus reasoning is that an equalizing of day and night causes an equalizing of gravitational forces." This statement is untrue. The reasoning is that the sun is closest to the equator at the equinoxes than any other time of the year. The increased gravitational pull of the sun is only felt at the equator of the earth at this time, which allows for an egg to stand on end. The only thing wrong with the statement is that the source did not specify it must be at the equator for this to occur.

Erin Suvada

reply: Sorry, Erin, but if your thinking were correct nothing would ever tip over on the equator at the equinox, which just is not the case. Eggs can be balanced anywhere, anytime, if you have the right egg and know how to balance things. The equinox, the sun, and the equator have nothing to do with it.

For all the astronomical details as to why the balance of eggs is independent of the equinox, see [Phil Plait's page on bad astronomy](#).

March 5, 1998. *Charles Grodin, CNBC.* Charles Grodin demonstrated how open-minded and gullible he is when he fawned over the man who talks to heaven, James Van Praagh, whom [Michael Shermer](#) calls "the master of [cold-reading](#) in the psychic world." Van Praagh has been making the talk show circuit plugging his new book about how all the dead people in the world are contacting him to talk to their living loved ones. His performance on Grodin's show was less than heavenly, but it was enough to satisfy Grodin and at least one couple in the audience who seemed to believe that their dead daughter was talking to Van Praagh. The only skepticism shown by Grodin was in wondering whether Van Praagh wasn't really reading the minds of the audience and the callers, rather than getting his messages from "the

other side". The only person on the show who stated her doubts about the authenticity of Van Praagh's contact was a woman who lost a daughter to murder by terrorist Timothy McVeigh in the Oklahoma City bombing. She stated that nothing Van Praagh said rang true about her daughter except some generalities. The woman claimed that her daughter communicates to her directly.

We can understand and sympathize with the woman who believes her dead daughter talks to her, but we have no affection for Mr. Van Praagh. He plays a kind of twenty-questions game with his audience. He goes fishing, rapidly casting his baited questions one after the other until he gets a bite. Then he reels the fish in. Sometimes he falters, but most of the fish don't get away. He just rebaits and goes after the fish again until he rehooks.

When he can't get a good bite, he reminds us that sometimes the message is in fragments, sometimes he doesn't understand it, sometimes he misinterprets it, etc. If he's wrong, don't blame him since he never claimed to be perfect.

But on this evening with Grodin, Van Praagh seemed particularly inept to me. Perhaps this is because I was looking for his tricks and already consider him a charlatan. Nevertheless, I think I can still appreciate good art, and he was not very artful. He used his usual bait: questions about girls and grandmothers, changes in the home, unresolved feelings, etc. He claimed to get messages about the usual stuff: angels, cancer, the heart, newspapers. What saves him much of the time are ambiguous questions he asks that end with "am I right?" and the client saying "yes", though we have no idea what the "yes" is in response to.

More pathetic that Van Praagh, however, was Grodin, who practically asked for his guest's blessing as he thanked him for his wonderful work. I don't know what was wonderful about it. Although it did leave me wondering why there wasn't more skepticism shown. If this is the kind of response Van Praagh gets on a bad night, no wonder he is so popular.

March 6, 1998. *Sacramento Bee*, ["She has firm roots -- past and present," by Anita Creamer](#). Columnist Creamer today wrote a panegyric to local radio personality Gina Miles who previously worked as a U.S. Air Force mechanic, a security guard and nurse's aide, but currently moonlights as a hypnotherapist specializing in [past life regression](#). These days Miles teaches a course in the local alternative education industry along with others such as Sylvia Browne who teaches a course on Healing Your Body, Mind & Soul. In one two-hour session Ms. Browne will teach anyone "how to directly access the genetic code within each cell, manipulate that code and reprogram the body to a state of normalcy." In an equally short period of time, Ms. Miles will take anyone into their past lives. She claims that she was a twig in a past life, a claim which endeared her to Ms. Creamer since most people claim to have been "Cleopatra or some other fabulous historical figure". In addition to this exciting bit of information about Ms. Miles past, we learn that she believes her husband was her father in a previous life and that she was molested twice in this lifetime.

Creamer defines hypnotherapy as "therapy that uses [hypnosis](#) to unlock the [subconscious](#)" but she shows no interest in exploring the validity of this non-sense.



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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Readers are encouraged to send *Mass Media Bunk* material to: btcarrol@skepdic.com

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

2

September 28, 1996. The Discovery Channel, 9pm PDT, "Psychic Powers". This was an hour-long pseudo-documentary on precognition, dreams, remote viewing, auras, Kirlian photography, etc., with only one skeptical comment thrown in for balance at the end of the program when the viewer is given the three logical options: (a) believe in the paranormal as many intelligent people do (b) be open-minded and wait for the evidence to come in before making up your mind, or (c) be a stupid skeptic and miss out on all the fun. The show was little more than a rehash of claims that have been made before with a few more anecdotes to add to the "proof" of psychic powers. The only attempt at explaining how these powers might work was by reference to the "possibility of a fifth dimension." Right. Which brings to mind a new motto: *The Discovery Channel - Enter the Fifth Dimension!*

September 26, 1996. ABC, 9pm PDT, *Chariots of the Gods? Again?* Yes, it is that phoenix Eric von Daniken back on the trail of extraterrestrials teaching engineering to ancient Egyptians, Mayans and anyone else who would listen. This time, however, he is given legitimacy by the narrator, that great intellectual historian and archaeologist, Richard Karne, who has a day job as co-host on "Tool Time." There was little new in this round with theories of aliens in ancient times. Well, you might consider his claim that the aliens may have taught the Egyptians how to use electricity, a "startling new discovery." This claim was based on a find of a jar which "can't be explained as a regular jar" except by skeptics such as those who write for the *Skeptical Inquirer*. The claim of Egyptian knowledge of electricity was also supported by a tomb painting showing what looked like a flower and a snake which von Daniken says may be symbols for electricity. Maybe. A Freudian might view these symbols differently. Indeed, a car mechanic might see them as proof that the Egyptians "may possibly" have had dipsticks and the hieroglyph was a warning to change your oil every 7,000 cubits. It's bad enough to speculate on such flimsy "evidence" that the Egyptians has electrical power, but von Daniken has to go one step further and claim that if the ancients had such knowledge they must have been given it by smarter beings from another planet. Right. And no doubt we will see a new book from this master charlatan claiming that the pyramids were ancient power stations and colossal statues were actually poles holding up a vast network of power lines. It will probably be a bestseller.

September 2, 1996. The Discovery Channel, 9pm PDT, "Sci Tek - The Real X-Files". For those who think the Discovery Channel shows nothing but NOVA quality programs, this advertisement for [Puthoff and Targ's Stanford Research Institute, and their star psychic, Ingo Swann](#), should change their minds. In this program with nearly no skeptical questions asked and very few skeptical comments made, Jim Schnabel narrates and interviews an array of military officers who were involved in

the U.S. Army's twenty year waste of taxpayer dollars on "[remote viewing](#)" and other psychic garbage. At the end of the program, the credits noted that Mr. Schnabel has a book on remote viewing forthcoming. He has learned one trick from the "psychics": there's gold in them thar hills!

The program even featured Mr. Schnabel undergoing a remote viewing training session with Swann in which Mr. Schnabel correctly identifies the pictorial contents of a folder. With such irrefutable visible evidence, how could anyone doubt the truth about remote viewing? Easy. As someone once said, anyone who doesn't think the camera lies, doesn't think.

I suppose we could say that doubts were raised about remote viewing by the fact that the show noted that one Army officer had been booted out for his too intense interest in psychic phenomena, another's wife left him when he became obsessed with extraterrestrials, another was married to a psychiatrist who believes she was abducted by aliens, another was shown as a cross-dresser in Native American garb, another thought his target was a building when it was actually a train station but he convinced himself and others that what he had seen was a Masonic temple near the train station; plus, these assorted psychics were depicted as being skeptical of the channelers and fortune tellers that the Army brought into the program. But the overall impression and obvious intention of the program was to suggest in very strong terms that there it is very likely that there is something of value in remote viewing, which suggest further that places such as the Stanford Research Institute and people such as Ingo Swann are legitimate and deserving of public support. Let them do their "research" but let them fund it on their own. Furthermore, let the Discovery Channel show programs on remote viewing, but don't let those programs be thinly veiled advertisements for new books. Let the Puthoffs, Targs and Swanns have their say, but let their critics speak also. Encourage the general public to be critical and skeptical, rather than gullible, when dealing with paranormal claims. Maybe the people at the Discovery Channel think that encouraging critical and skeptical thinking about the paranormal wouldn't be good for business. We'll probably never know.

August 19, 1996. *The Davis Enterprise*, reprinted an UPI story on with the headline

New Bay Area code spiritually significant

The article stated that "residents of the San Francisco Bay area's Peninsula can put away any sadness over losing their 415 area code." The San Francisco Examiner consulted a psychic about the change to area code 650. Mary Kara, psychic and bookshop owner, claims the new number has "spiritual significance." Indeed. Here is her psychic reasoning: "take the number five and six and that totals 11." This has spiritual significance because Ms. Kara owns 11 bookshops. "That's a power number. That's a destiny number," says Ms. Kara, ambiguously, referring either to 650 or 11. Continuing on in the same psychic tone, she says that "It's a new-millennium number. It's like realizing a potential. It's very strong in a spiritual way."

I'm sure this is all very amusing to some readers, but I have to admit that I started to realize that maybe she was on to something when she noted that 415 is not so great. "It's different than 11, in that it's more self-absorbed." Stories like this should be deep

sixed. That's a power number, better than 11 any day.

July 1, 1996. *The Sacramento Bee* (front page), "Retired UCD professor looks for what none see," by Gary Delsohn, recalls [Charles Tart's](#) quest for ESP and God through psychology, drugs and Buddhism. Tart retired from the nearby University of California at Davis over a year ago, so the article wasn't a farewell to the area's best known parapsychologist. He still hasn't found what he's looking for, so it wasn't to tout his discovery of the true religion or God in the loins of an LSD capsule. It was just a story about Tart and his "long and controversial career." Why now? Perhaps because of Hillary Clinton's meetings with [Jean Houston](#). Perhaps because of all the alien movies which are now playing or about to be playing at your local theater. Maybe the *Bee* just wants to get on the bandwagon of the weird and wonderful.

Though the article had no apparent purpose other than to pander to the public's taste for the paranormal, there were a few interesting claims made. For example, Willis Harmon, a former Stanford professor of engineering systems was quoted as saying that "Charlie" insists on asking taboo questions such as "What happens after death?" and "What is the meaning of psychic phenomena?" *Taboo* questions?

Tart himself is quoted as saying that atheists think "'Hey, what do I give a damn about the ecology? I'll be long dead and gone before it all goes bad.' So we live only for the material, only for ourselves." He claims that atheists don't care about the environment and that all those who deny the existence of spirits (metaphysical materialists) are egoistic, selfish materialists (who only care about money, power, material possessions). He has as much evidence for these claims as he does for ESP, namely, none. One might as well claim that theists don't give a damn about the environment because the environment is part of the physical world and the only world that really matters is the spiritual one. The spirit will still be here when the world is long gone, so why give a damn about the world?

Tart was a tenured professor at UC Davis, where he taught for some twenty years. His first big book was *On Being Stoned* (1971). He is called "a rigorous scientist" by Delsohn, though his *rigor* has been characterized as *mortis* by the likes of Martin Gardner and James Randi. I'm sure he was very popular with the students who think that LSD is a holy sacrament and gateway to the divine. Tart is praised in the article by a colleague of mine who teaches his psychology students to read his aura. My colleague is quoted as saying that it is our *narcissism* which leads us to dismiss the paranormal and the spiritual. Yes, and I suppose we are *in denial* about it, too.

I wonder if Tart or Houston or others who have found phenomenological similarities, if not identities, between drug, paranormal and mystical experiences have ever considered that this indicates a strong probability that such experiences are *materially* based and probably are best explained by bio- and neurochemistry?

Anyway, I think I wait in vain if I wait for the *Bee* to run a gratuitous article about the wonders and beauties of science, or a day in the life of a skeptic.

For more on Tart, see the *Skeptic's Dictionary* entries on [ESP](#) and [hypnosis](#).

April 29, 1996. ABC Television: *Put to the Test II* - Billed as a test of psychic

powers, this show demonstrated little more than the lengths to which ABC will go to pander to gullible and credulous prime time television viewers. James Randi of the [Amazing Randi Hotline](#) sent out a missive blasting ABC. He wrote:

ABC-TV will not give a moment's thought as to whether viewers will be emotionally or informationally damaged by their show. They will only look at the ratings. Their ethics and honor are elements that are ignored in favor of giving trusting viewers a distorted, biased, and fictionalized view of what those viewers have every right to know is farcical. ABC-TV just doesn't care. The bottom line is the dollar-value of what they show the public, how many cars, how much toothpaste, and what acreage of water-beds leave the stores the next morning. Ethics be damned. We can always stick on a few more public-service messages to keep the FCC pacified and get the license.

He wasn't exaggerating. There was little effort to put anyone or anything to the test, except the patience of skeptics and honest people everywhere. The evening's entertainment consisted of three stooges acting as "objective" evaluators of (a) a "psychic detective," (b) a hypnotherapist who "cured" a woman of her fear of flying in an 18 minute session, and (c) a Russian human x-ray machine who claims to be able to diagnose diseased or injured organs and bones by "seeing" through clothes, tissue, etc., right into and through the body. He can even do this when the body he is "seeing" through is not present.

I will admit that the three stooges hosting the program did, at times, pretend to know what a real test of a psychic would involve, as when one of the stooges said to the other: "she wasn't fishing, was she?" We had all witnessed the [fishing](#) but the other stooge assured us that there had been no fishing. How did they fail to do any real testing? Let me count the ways.

The first to be tested was a woman who describes herself as a [psychic detective](#). She claims that she can solve a crime, committed anywhere in the world, without leaving her armchair. All she needs is the name of the victim and some article from the victim. The so-called test of her powers consisted of trying to see if she should retro-solve three crimes that had already been solved. The cop who had solved the crimes appeared on the show as a kind of fourth stooge. Instead of letting the "psychic" ramble on and on, the detective kept notes in front of her and let her know when she was on or not on by telling her "I can confirm that" or "I can't confirm that." Obviously, the tape was edited, not that it much matters, for there is little likelihood the ABC stooges had any interest in tallying up her hits and misses. They seemed satisfied to place a photo of the criminal next to a drawing based on the "psychic's" description and declare that they looked very similar when in fact they didn't look alike at all to me. They might have had a non-stooge, who had no idea what they were doing, compare the photo with several drawings, including the one based on psychic visions. Or they might have had several non-stooges examine several photos, one of which would be that of the criminal, and compare them to the psychic drawing. But to let the eager ABC stooge and the cop stooge be the judges of whether there was any resemblance defies all logical testing methods. One of the stooges finished off this segment of the 3-ring circus with a hopeful note that such psychics would soon be testifying in courtrooms as their methods become more

accepted!

I'll let somebody else comment on the sideshow involving the hypnotherapist "curing" the phobia of the Chino housewife. All I'll say is that I wanted to push her out of the airplane when she started acting like Rocky. I'm sure others were filled with joy at the heartwarming story of a woman who overcame her fears (on such short notice, too!). According to her hypnotherapist, she had been "reprogrammed." I'm sure she was. Plus, she was on national television. (The best part of this segment of the show was the claim by one of the stooges that the viewing audience would not witness the 18 minute session to prevent us from becoming hypnotized!)

The best test of all, though, was the test of the Russian x-ray machine. This guy claims to be an M.D., though no mention was made of where he was trained or got his degree. We were told, however, that he is not allowed to practice medicine in the U.S. Even so, this is such a great country that he is allowed to do psychic diagnoses of anyone he pleases. (I wonder if there are warnings when he does performances: this is for entertainment purposes only!) Anyway, this guy is so good that you do not need to be present to get diagnosed. The test consisted of having some middle-aged guy examined by a chiropractor (!), and two other guys who claimed to be doctors of some sort. Their evaluations were to be used as a standard against which to measure the "diagnosis" of the psychic who was doing his work in another room without ever having met the "patient." All he knew was the patient's name and age. Again, the psychic's evaluations were edited, but no interest was displayed in establishing some way to measure what counted as a hit and what was a miss, much less any concern at doing the actual counting. One of the stooges did tell us that a 70% accuracy rate is considered good and that in another session the psychic was only right 20% of the time, but I don't think even the stooge knew what that meant. Even more fascinating to me is the fact that none of the stooges showed the slightest interest in explaining how someone might solve a crime by feeling a victim's hearing aid or how a man might see through clothes and skin into organs and bones. I think they showed no interest because they realize such claims are ridiculous on their face and explaining them would involve preposterous assumptions. This was a show, pure and simple, not a test of psychic powers. It was bunk, pure bunk.

James Randi made the following comments on the show, for those of you who do not subscribe to his hotline:

Let me suggest that a proper test of the "police psychic" would have been to have her work one of the three cases, chosen at random, without anyone present who knew the answers to prompt her -- which was so obviously the case here -- and then ask an independent panel to decide which of the three cases she was talking about. That would require that clues in her "reading" identifying anything, be removed. It wasn't too tough to figure out that "Josephine" with a hearing aid was an elderly woman, nor that there was some sort of a slant to the roof of the house. It was appalling what the TV hosts oohed and aahed at. And that drawing looked more like Queen Victoria than the convicted killer. Amazing.

As for the Russian "doctor," I'd suggest that 5 men of roughly

similar age be placed in that room, that one of them be chosen at random as the subject, and the first name and age be given to the "psychic," and not identified to anyone but him. After his "reading," all the items would be presented to all the subjects and the "experts" who sat in, to decide which of the five persons was the chosen subject....

April 23, 1996. In an article titled "Who's write to be president? Handwriting gives clues," the *Kansas City Star* reports on the claims of two "handwriting analysts" regarding the suitability of Clinton, Dole and Buchanan to be president. Without a hint of skepticism, the article cites the completely unsubstantiated claims of Royce Smith, a former Marine who has analyzed handwriting for 37 years, and Paula Leighton, a handwriting analyst from Leawood, Kansas. I guess elections bring out the silliness in journalists. I thought the *San Francisco Chronicle* had hit rock bottom when it published an article based on the "face reading" of mayoral candidates by Rose Rosetree, self-proclaimed phrenologist, in October of 1995 (see the *Skeptical Inquirer*, March/April 1996, p. 5). But the *Kansas City Star* demonstrates that journalistic promotion of pseudoscience is not limited to the West Coast.

Smith is quoted as saying: "Your handwriting is a printout of your mind." The author of the article gives no indication that this claim is ludicrous, if it is even meaningful. Leighton is said to have earned her master graphological certification from the Institute of Graphological Science in Dallas. No indication is given by the author that such a diploma is meaningless.

According to the article, companies hire Smith to screen prospective employees and lawyers use him to study potential jurors and witnesses. The only thing he does which seems a legitimate use of his handwriting analysis skills is that he testifies in forgery cases. Yet, no mention is made of the potential danger of hiring pseudoscientific graphologists to evaluate people's character or inclinations based on the way they write.

What I found most interesting about the article was that for all their temerity in making outlandish, unprovable claims regarding slants, loops, sizes of letters and how they correlate with this trait or that, neither Smith nor Leighton would say who would make the best president. Leighton said she doesn't like politics. Smith said that Buchanan would be the best president because he's "a people person. He's sharp, he's got intuition. And he's independent." However, Smith also said that "on research and problem-solving, Dole or Clinton would probably be No. 1."

Why was this article written? Why was it published? Who knows, but without a hint of skepticism regarding the ancient pseudoscience of [graphology](#), this one qualifies as pure bunk.

(Thanks to Navin Kabra for bringing this article to my attention.)

April 7, 1996. *The Sacramento Bee* headline reads

Unabomber profile strikingly close to Kaczynski

The FBI profile, undoubtedly the work of master psychologists with help from a few CIA psychics, predicted that the Unabomber would be in his late 30's or early 40's. Kaczynski is 53. The profile was of a white male, 5'10"--6' tall, 165 pounds, with reddish-blond hair, a thin mustache and a ruddy complexion. Kaczynski is a white male, but he is 5'8", weighs 143, has brown hair, is bearded and has pale skin. The profile predicted he would be a blue collar worker with a high school degree. Kaczynski hasn't had a job in the last 25 years and has a Ph.D. in mathematics from the University of Michigan in addition to being a graduate of Harvard University. The FBI profile predicted the Unabomber would be a meticulously organized person, reclusive and having problems dealing with women. Kaczynski is a recluse who apparently did not deal with women at all, but he is slovenly and unkempt.

Outside of being right about him being a white male and a loner, this profile does not strike me as being "strikingly close to Kaczynski." The FBI profile seems about as accurate as a horoscope or a Myers-Briggs reading. Actually, the FBI profile is about as accurate as the [drawing of the Unabomber](#) which the FBI has been circulating for years. Side by side only an FBI agent could possibly see a resemblance between Kaczynski and the FBI drawing.

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Last updated 08/09/02



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reader comments:

Gurdjieff

09 May 2000

You know I can't sleep, I can't stop my brain You know it's three weeks, I'm going insane. You know I'd give you everything I've got for a little peace of mind. -Beatles, I'm so tired

Sleep, rest of nature, O sleep, most gentle of the divinities, peace of the soul, thou at whose presence care disappears, who soothest hearts wearied with daily employments, and makest them strong again for labour! -Ovid

Have you ever stood and stared it? marvelled at its beauty? - Agent Smith

I should first commend you for your effort towards skepticism. I should second be skeptical of your own reading of Gurdjieff, if I would be congruent with your own efforts. So, I will point out in a logical way the flaws in your argument against Gurdjieff, which you may post on your website if you wish to be humiliated to the general public you pretend to serve with your diatribes.

I will begin with the major points. You state:

Their current disciples presumably ignore Gurdjieff's more ridiculous claims, such as the following comment on the moon: "All evil deeds, all crimes, all self-sacrificing actions, all heroic exploits, as well as all the actions of ordinary life, are controlled by the moon."

*Indeed, it is you who are ignorant. Gurdjieff refers not to the physical moon orbiting Earth but rather to a cosmological concept that the moon represents in his metaphysical system. The moon to Gurdjieff is a complex symbol, perhaps too complex for people like you who take things literally and discredit any meaning that they don't understand. The moon represents the denser aspects of life, those extremes and norms which Aristotle referred to in *The Nicomachean Ethics*. Aristotle said that the virtuous man lives "in the mean," the reasonable median between extremes, or "the middle place" that Gurdjieff refers to. Jesus also refers to this as "the narrow place." The moon represents the extremes that are the norm in our world, since the incontinent man (I.E. yourself) obeys and trusts his senses and impulses, seeking not after rationality and truth but rather after what feels right and what is comfortable to his basic self. This man won't*

challenge his own deeply held notions and easily dismisses anything that isn't part of his moon, his own lunacy.

You continue to misrepresent his teachings throughout your essay:

What makes a guru such as Gurdjieff attractive as a spiritual conquistador is rather his more cynical beliefs, such as the notion that most human beings who are awake act as if they are asleep. Gurdjieff also observed that most people are dead on the inside. I think he meant by these claims that most people are trusting, gullible, easily led, very suggestible, not very reflective or suspicious of their fellow.

Gurdjieff is not a cynic, but an optimist. His analysis of the state of most people is not a condemnation but rather a suggestion of hope. No one in their right mind would say that most people are fulfilling their potential or are as open minded, conscientious, moral, or good as they could possibly be. Gurdjieff only invites people to take a look at their own lives and gives them a system by which to do so, just as many philosophical teachers in history have done. Indeed, elements of Gurdjieff's teachings bear uncanny resemblance to the teachings of Plato, Aristotle, Seneca, Lucretius, as well as many others with hundreds of years of philosophical instruction. Gurdjieff claims to have synthesized as much of this wisdom as he could into his system, and any in depth analysis of it yields credibility to this notion.

Your analysis that Gurdjieff thought most people to be trusting, gullible, easily led, etc. is a product of your imagination, of fitting Gurdjieff into your pre-formed idea of what a sophistic, swindling wise guy must be like. What he means by "mankind is asleep," is that most people have a system of built-up habits of thought and behavior from which it is nearly impossible for them to deviate, primarily because they identify with this system, taking it to be themselves. They do not consider that they learned these habits in the same way that they learned language: by imitation. They acquired this system, called the personality, mostly when they actually were impressionable, gullible, and easily trusting: when they were children. Gurdjieff offers a system by which a person may non-identify with this system in order to study it and determine which parts of it are not virtuous or beneficial to the individual as a whole, for any study quickly reveals many conflicts of interest within the self which impair the overall willpower.

Gurdjieff definitely recognizes that such ideas as this are dangerous and could be used for the wrong reasons, which is why he emphasizes that the work he teaches must be done according to a certain attitude of lightness and love, I.E. exactly the opposite of an intention to take advantage of someone and use them for something as petty as monetary gain. Perhaps you should add McDonald's to your dictionary, with such a theme in mind.

Your misinterpretation continues:

Gurdjieff obviously had a powerful personality, but his disdain for the mundane and for natural science must have added to his attractiveness.

Gurdjieff did not hold the mundane nor the natural sciences in contempt. Actually he emphasized the importance of melding the science of the West with the wisdom of the East. If anything, he held in disdain the secular view that religion and science are inherently separate and sought to find a way to reconcile the conflict between two otherwise valid ways of interpreting reality.

In any case, I have a biology final to continue studying for. I leave you with the following passages from the New Testament, which you probably also have a propensity for being skeptical towards.

Gurdjieff is not the first spiritual teacher to have been misunderstood:

"And they did not understand the saying which he spoke to them." - Luke 2:50

But they did not understand this saying, and it was concealed from them, that they should not perceive it; and they were afraid to ask him about this saying. - Luke 9:45

But they understood none of these things; this saying was hid from them, and they did not grasp what was said. - Luke 18:34

This figure Jesus used with them, but they did not understand what he was saying to them. ... Many of them said, "He has a demon, and he is mad; why listen to him?" - John 10:6, 10:20

He supposed that his brethren understood that God was giving them deliverance by his hand, but they did not understand. - Acts 7:25

... they did not recognize him nor understand the utterances of the prophets which are read every Sabbath, fulfilled these by condemning him. - Acts 13:27

Jonathan S. Gilbert

reply: Blessed are the meek, for they shall get what they deserve.

11 Aug 2000

I was reading the "Skeptic's Dictionary" and found some inaccuracies with your treatment of Gurdjieff and Ouspensky. One of the first ones is that, even though Gurdjieff brought the enneagram to the west, it had nothing to do with personality types. Unfortunately, people have gotten hold of the enneagram, not knowing what it means, and have used it for some purpose not related to the original one. The enneagram, which is a very ancient symbol, is a "book". It is

very much like a physicist who understands the symbol $E=MC^2$, and all its implications. It describes the psychology and cosmology of man as a specific "process" under various laws. These laws by the way are compatible with "all" scientific laws up until now. It is just the terminology that differs. Another point is that Gurdjieff never proclaimed himself a prophet or dismissed science as nonsense. What he did say was that the current "gaps" in science are made, not by the principles or methods of science, but by the way science approaches the "gaps" in question. His mission, was to try and merge "the wisdom of the east with the science of the west". He thought both were equally important. Also, you treat Ouspensky as a cult icon. This is not true. Ouspensky himself, when he was teaching in America, realized that people were starting to treat him like a cult symbol. This disturbed him, and during the last few years of his life he made all attempts, even telling people he never taught any system, to relinquish the image created. Both Ouspensky and Gurdjieff thought that the scientific method was the correct one to investigate the phenomena of the world. The reason why they wanted to merge western science with eastern wisdom was for one simple fact: science then, and now, regards "experience" of our psychology as less "real" than the "world out there", but as Kant pointed out, because of our perceptual apparatus, we "create" a picture of the world before us, and from this, if we are to fully analyse man's situation, one must start of our investigations here, how man experiences the world, not from a sensuous point of view (though important) but from a psychological view of himself. This is because even scientists have a perceptual apparatus, and will interpret "facts" as they perceive. Just look at quantum theory, it is one of the most accurate theories of the world we have, yet one of the most unexplainable!

P.S. I would like to know your thoughts on Thomas Kuhn's criticisms of science. As a sceptic, wouldn't it be prudent to be sceptical about science also?

(name withheld by request)

reply: Kuhn was not a critic of science. He was an historian of science. [Science](#) requires a healthy skepticism. I don't know what you are talking about when you say quantum theory is accurate but unexplainable.

7 Apr 2000

Thanks for the essay on Gurdjieff. It's more in line with his teachings than the efforts of some who insist they are students. There are probably more anecdotes along the lines of the "inter-planetary traveler and the prostitute" than we both could fathom. A lot of them make me laugh. It's funny in that it highlights the extent to which people are, and can be, gullible. It's a necessary component of spiritual teaching to expose the student's weaknesses (in Gurdjieffian terminology, "false personality") and the effort can manifest itself in otherwise abnormal ways.

While I read your article, I observed a crowd of inner disagreeers who felt and spoke like the ones in the two responses you published. As I was reading their responses, several things came to light. One respondent claimed that you had no right to write what you did. The only right I have ever heard mentioned in the Gurdjieff teachings came through the work of Dr. Maurice Nicoll. It is "the right to not be negative." The respondent was not exercising his right at that particular moment. Instead, his claim asserted that somehow, the system of Gurdjieff's teachings, which the respondent apparently appreciates, somehow did not account for you or your efforts. On the contrary, the core of the teachings, quite distinct from the bizarre anecdotes that are routinely filtered through subjective lenses, are

"Believe nothing; verify everything" "A healthy skepticism is a must."

The second respondent spoke of your having been gravely offensive. What a load to carry around, isn't it? These teachings are quietly taught, person-to-person, in settings so private that you wouldn't be able to tell your local grocery from a Fourth Way school. Gurdjieff's teachings are not affected by the surface debates, and the personality injuries and sufferings that the exoteric world seems to thrive upon. The teachings are evaluated by their effectiveness to actually transform a person's being from an unrefined patty of emotional, mental, and physical by-products to something completely different and much finer.

This is the nature of alchemy. This is how we find our deck of playing cards, and our periodic table. The outer world does take and use the things of the inner world for its own purposes and those living solely in the outer world are, fortunately, protected from this ignorance. Only something of a shocking nature can change this, but then we open up the floor to the debaters again when we talk this way. What kind of a shock do you mean? Is it ethical? How do I know that a person isn't going to do something abusive and justify it as a shock?

So many voices, all clamoring for the microphone. What to do...what to do? Well, anyways, that was a very nice essay indeed. And I thank you dearly for it, on behalf of myself and the other respondents who apparently forgot Gurdjieff's teachings at that moment.

Eric

reply: I'm sure they are as thankful to you as I am.

13 Sep 1999

First of all, I understand that all sides of any argument deserve to be heard, especially within this ever growing information glut known as the Internet. I do appreciate the balance you bring to the forum with your unobjective scepticism...it rightly balances out the equally unobjective "mooniness" of the

"true believers", and god knows there are enough of those out there. I suggest, as I'm sure many others have before me, that you do away with the name "Skeptic", as you obviously rely on it's somewhat vernacular popular meaning, and in no way reflect true skepticism (in my opinion, of course!).

reply: Actually, you're the first to make this suggestion. I was going to call it the *Doubter's Dictionary*, but the alliteration was too urbane. Anyway, you obviously have not taken the time to read either the entry on [skepticism](#) or the [Introduction](#) to *The Skeptic's Dictionary*. Otherwise you would have a better idea of how I use the work 'skeptic'.

In regards to the "entry" Gurdjieff in this dictionary of yours, I see nothing but undocumented slander.

reply: I usually document my slanders, but got lazy with the Great One. In any case, slander would require me to defame the Great One with lies and thereby do damage to his reputation. Referring to Gurdjieff as a con man is a compliment to his abilities to gull many otherwise quite intelligent and respectable people to respect his intellect and talent so much that they would gladly work for him for nothing in return for the privilege of being allowed to stay in the Great One's presence.

To call someone a "Con Man" without any sort of proof (and if you think the anecdote you post is any sort of evidence, I suggest you try to look a little bit harder at what is really being demonstrated within it), or evidence to back up such a claim is just simple minded.

reply: You might have done better to demonstrate that the proof I give is inadequate, false, misleading, etc., instead of simply asserting that I have no proof.

I am sorry to hurl little expletives like this, it is not out of a lack of respect. I just feel that you've done a disservice to something that is, I believe, a mite bit more complex and interesting than you've deemed worthy to investigate for yourself. There ARE serious thinkers out there, who propose ideas that might, on the surface, seem to contradict your world view....but not everyone speaks as "directly" as you think you do, I'm sure. Some, including the initiators of some of the worlds great religions, think that some truth is best occluded, just a little, below the surface of the words. While you might not deem this "Scientific", I don't think you have the right to hold such an argument against anything you dislike, as your own judgement and opinion of the things you write about in this forum is certainly very far from scientific or objective, or anything of the sort.

reply: I have no right to write about things I disagree with? Now there's an interesting concept. Is this an inference you draw from one of the Master's aphorisms: write not but that thee be right, or left, as the case may be, depending upon the position of the moon.

All that said, I know you've put the caveat of "My Opinion" on many of this site's disclaimers. The next disclaimer you need to make, in my small opinion, is to remove the word sceptic. It is, perhaps, unethically misleading.

With respect,

Jordon Flato

reply: I don't recall making any disclaimers and I don't plan to start with the one you suggest.

What is obscure, obscures what is.

31 Aug 1999

I came upon your entry on the topic of G.I. Gurdjieff in your "Skeptics Dictionary". I suspect your criticism of his words and his colorful history is a surface reaction to information designed to cloak the real content behind his teachings. I suggest you find a genuine guide who is knowledgeable about his methods, who can perhaps bring you to an understanding of your own mental aberrations which cause you to sit in judgment of things, of which you have no knowledge or experience of. Your remarks are offensive and inflict an injustice to those who have studied his intent with serious consideration. Some of these individuals who are familiar with these teachings, occupy very high positions in our society. You are obviously not ready for that crowd yet. I hope you find your way out of the illusions of your own mind and stop spreading these idiot statements that you may consider your own personal knowledge.

Any psychologist can enlighten you that madness has a logic all its own. Your self image of being a Pontifical Skeptic is healthy only to a point, beyond that point, without direct experience your knowledge is self delusion. You must seek understanding as a primary goal. Understanding has durability, knowledge is provisional at best.

Raymond J. Burke

reply: Thank you for the inspiring comments. I see things much more clearly now.



[Gurdjieff](#)

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According to a Gallup poll, belief in witches has increased from 14% to 26% over the past decade.

[DR Congo's unhappy child 'witches'](#)

[Horrific murders in name of ritual medicine](#)

[HUNDREDS of women, men and children are charged every year with practising witchcraft in the Central African Republic, a crime punishable by execution or imprisonment.](#)

witches

"Thou shalt not suffer a witch to live," it says in the book of Exodus (xxii, 18). This and other Biblical admonitions and commands both defined the witch and prescribed his or her fate. A witch is someone in consort with [Satan](#), the Evil One, the spirit who rebelled against God but whom God suffered to live.

Today, the typical witch is generally portrayed as an old hag in a black robe, wearing a pointed black cap and flying on a broomstick across a full moon. Children dress up as witches on Halloween, much to the dismay of certain pious Christians. Hollywood, on the other hand, conjures up images of sexy women with paranormal powers such as [psychokinesis](#), [mind-control](#), hexing, and an array of other occult talents.



"Pagan" or anti-Christian New Age religions are sometimes identified with witches because some pious Christians think they practice witchcraft or because those in the religions claim to practice "[magick](#)" or "the craft." Some of the members of these groups refer to themselves as "witches" and their groups as "covens." (Some male witches are very touchy about being called "[warlocks](#)".) Some of the members of these groups call themselves "[sorcerers](#)" and worship Satan, i.e., they believe in Satan and perform rituals which they think will get them a share of Satan's supernatural occult powers. (Some are very touchy about being called "sorcerers".) Most New Age witches [do not worship Satan](#), however, and are very touchy about the subject. They would rather be associated either with the [occult](#) and magick or with attempts to re-establish a kind of nature religion which their members associate with ancient, pagan religions, such as the ancient Greek or the Celtic, especially [Druidism](#). The neo-pagans also refer to both men and women witches as witches. One of the largest and most widespread of these nature religions is [Wicca](#).

The witches of Christian mythology were known for their having sex with Satan and using their magical powers to do evil of all sorts. The culmination of the mythology of witchcraft came about from the 15th to the 18th centuries in the depiction of the witches' Sabbath. The Sabbath was a ritual mockery of the Mass. Witches were depicted as flying up chimneys at night on broomsticks or goats, heading for the Sabbath where the Devil (in the form of a feathered toad, a crow or raven, a black cat, or a he-goat) would perform a blasphemous version of the Mass. There would also be obscene dancing, a banquet and the brewing of potions in a huge cauldron. The banquet might

include some tasty children, carrion, and other delicacies. The witches' brew was apparently to be used to hurt or kill people or to mutilate cattle (de Givry, 83). Those initiated into the satanic mysteries were all given some sort of physical mark, such as a claw mark under the left eye. The Devil was depicted as a goat or satyr or some sort of mythical beast with horns, claws, tail, and/or strange wings: a mockery of angel, man, and beast. One special feature of the Sabbath included the ritual kiss of the devil's ass (de Givry, 87), apparently a mockery of the traditional Christian act of submission of kneeling and kissing the hand or ring of a holy cleric. Numerous testimonials to having witnessed the witches' Sabbath are recorded. For example, a shepherdess, Anne Jacqueline Coste, reported in the middle of the 17th century that during the night of the feast of St. John the Baptist she and her companions heard a dreadful uproar and

looking on all sides to see whence could come these frightful howlings and these cries of all sorts of animals, they saw at the foot of the mountain the figures of cats, goats, serpents, dragons, and every kind of cruel, impure, and unclean animal, who were keeping their Sabbath and making horrible confusion, who were uttering words the most filthy and sacrilegious that can be imagined and filling the air with the most abominable blasphemies (de Givry, 76).

Such stories had been told for centuries and were accepted by pious Christians without a hint of skepticism as to their veracity. Such tales were not considered delusions, but accurate histories.

Pierre de l'Ancre, in his book on [angels](#), [demons](#) and [sorcerers](#) published in 1610, claims he witnessed a Sabbath. Here is his description:

Here behold the guests of the Assembly, having each one a demon beside her, and know that at this banquet are served no other meats than carrion, and the flesh of those that have been hanged, and the hearts of children not baptized, and other unclean animals strange to the custom and usage of Christian people, the whole savourless and without salt.

The claims made in books such as de l'Ancre's and the depictions of Sabbath activities in works of art over several hundreds of years were not taken as humorous fictions or psychological manifestations of troubled spirits. These notions, as absurd and preposterous as they might seem to us, were taken as gospel truth by millions of pious Christians. What is even stranger is that there are many people today who believe similar stories about [child-eating and ritual killing of animals, combined with sexual abuse and satanic influences.](#)

I will leave it to the Freudians to interpret these persisting myths of satanic

creatures with horns, big red tails, and huge sexual appetites; of kidnapping and sexually abusing, mutilating or killing children; of women who put long sticks between their legs and rub on a magic unguent and fly to a sexual liaison with a demonic he-goat; and of creatures with supernatural powers such as metamorphosis. My guess is that witchcraft and sorcery were for the most part brewed in the cauldron of sexual repression and served up as a justification for the public trading in art and literature, if not in life, of Church-created, sanctified, and glorified pornography.

To be sure, there was undoubtedly some persecution of those, especially in the countryside, who maintained a connection with their pagan past. But it is difficult to believe that the descriptions of witchcraft wrenched from tortured and mutilated victims century after century were not mostly created in the imaginations of their tormentors. The inquisitors' power was so great, their tortures so varied and exquisitely sadistic, that they had thousands of their victims deluded into believing they were possessed and wicked. The cruelties and delusions went on for centuries. Witch-hunting was not abolished in England until 1682. The hunt spread to America, of course, and in 1692, in Salem, Massachusetts, nineteen witches were hanged. (In 1711, the Massachusetts State Legislature exonerated all but six of the accused witches. In 1957 the state legislature passed a resolution exonerating Ann Pudeator "and certain other persons," who were named in a bill exonerating them in 2001.)

The last judicial execution for witchcraft in Europe took place in Poland in 1793, when two old women were burned. A wizard, however, died as a result of an unofficial ordeal by water in England in 1865, and in 1900 two Irish peasants tried to roast a witch over her own fire (Smith, 295).

Whatever the psychological basis for the creation of an anti-Church with witches and sorcerers joined with Satan to mock and desecrate the symbols and rituals of the Church, the practical result was a stronger, more powerful Church. No one knows how many witches, heretics, or sorcerers were tortured or burned at the stake by the pious, but the fear generated by the medieval and Spanish Inquisitions* must have affected nearly all in Christendom. Being accused of being a witch was as good as being convicted. To deny it was to prove your guilt: Of course a witch will say she is not a witch and that she does not believe in witchcraft. *Throw her in the river! If she sinks and drowns that will prove she is not a witch; if she swims, we will know the devil is assisting her. Pull her out and burn her to death, for the Church does not like bloodshed!* In truth, the Church ran a Reign of Terror the superior in many ways to those of Stalin or Hitler. Their Terrors lasted only a few years and were restricted to limited territories; the Church's Terror lasted for several centuries and extended to all of Christendom. The Church's Terror was also aimed mainly at women. Thus, it is not strange that those religions today whose members call themselves witches or sorcerers should be anti-Christian, pagan and woman-centered, or satanic. It is not strange that these New Age

religions exalt whatever the Church condemned (such as egoism and healthy sexuality in adults whether homosexual or not) and condemn whatever the Church exalted (such as self-denial and the subservient role of women). Who could blame them?

Witchcraft and [sorcery](#) are still practiced in many countries around the world. For example, in Malaysia a witch, her husband and assistant were recently hanged to death for a grisly murder. Before killing their victim, they had him lie on a floor and wait for money to fall from the sky. "He was then beheaded with an axe, skinned and chopped into 18 parts before being buried in a hole and covered over with cement" (Reuters news service). In Tanzania, an elderly man was beaten to death after he claimed to have used witchcraft to cause a road accident in which 32 people died. The man had been collecting heads and other body parts of victims at the crash scene ([Reuters news story](#)). In [Saudi Arabia](#), Hassan bin Awad al-Zubair, a Sudanese national, was beheaded after he was convicted on charges of sorcery.

See related entries on [magick](#), [miracles](#), [pagans](#), [Satan](#), [sorcery](#), [warlock](#) and [Wicca](#).

further reading

- ["SPIRITS, WITCHES, & SCIENCE: WHY THE RISE OF SCIENCE ENCOURAGED BELIEF IN THE SUPERNATURAL IN 17TH-CENTURY ENGLAND"](#) by Richard Olson
- [The Witches: Myth and Reality](#) by Adrian Nicholas McGrath
- [What's the deal with witches and broomsticks?](#) - Cecil Adams, The Straight Dope

[Carus, Paul. *The History of the Devil and the Idea of Evil* \(Gramercy, 1996\) reproduction of the original 1900 edition.](#)

[de Givry, Grillot. *Witchcraft, Magic & Alchemy*, trans. J. Locke \(New York: Dover Publications Inc., 1971\), an unabridged republication of the Houghton Mifflin edition of 1931.](#)

[Hicks, Robert D. *In Pursuit of Satan : the Police and the Occult* \(Buffalo, N.Y.: Prometheus Books, 1991\).](#)

[Hill, Frances. *A Delusion of Satan - The Full Story of the Salem Witch Trials* \(New York: Doubleday, 1995\).](#)

[Norton, Mary Beth. *In the Devil's Snare: The Salem Witchcraft Crisis of 1692* \(Knopf, 2002\).](#)

[Sagan, Carl. *The Demon-Haunted World - Science as a Candle in the Dark*, ch. 7 "The Demon-Haunted World," \(New York: Random House, 1995\).](#)

Chapter 24 is written with Ann Druyen and contains a synopsis of Friedrich von Spee's *Cautio Criminalis (Precautions for Prosecutors)* (1631), which details the irrational and sadistic methods of the witchhunters.

Smith, Homer. *Man and His Gods*, foreword by Albert Einstein (Boston: Little, Brown and Company, 1952).

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[wizard](#)

[SkepDic.com](#)

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the SKEPTIC'S DICTIONARY

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The Skeptic's Refuge

If you hear music
it is the
Passacaglia and
Fugue in C minor
by
J.S. Bach

A Skeptic's Halloween



full moon madness



witches



devils



werewolves



zombies



haunted houses



ghosts



magick



Wicca



incantations



the occult



spells



[druids](#)



[pagans](#)



[pentagram](#)



[vampires](#)

further reading



[Samhain \(Celtic New Year, aka Halloween\)](#)

--[Embracing your inner zombie](#) by D. Trull

--[Spooky Acoustics](#) by D. Trull



[HorrorFind.com](#)



SkepDic.com

[Ramar Pillai admits
it was not herbal fuel](#)

(March 14, 2000)

herbal fuel

Ramar Pillai, from Tamil Nadu in India, claims he has found the [philosopher's stone](#) of the petroleum age. He says he has an herb that can turn water into a virtually pollution-free diesel fuel or kerosene for about 23 cents a gallon. Pillai has managed to convince a few zealous followers that he is the new Isaac Newton, but skeptics believe he has been exposed as a fake. In one demonstration of his magic herb, it was alleged that his stirring stick was hollowed out and filled with gasoline. When his mixture was heated up, a wax plug at the end melted and allowed gasoline into the mixture.

Pillai is a high school dropout from a village near Rajapalayam, but he has intrigued scientists at the Indian Institute of Technology (IIT) by his claims and demonstrations. He says he doesn't want a lot of money, that he only wants a processing plant built near his home village and some protection for his family. He claims he was kidnapped and tortured for several days for refusing to tell his tormentors how he turns water and herbs into fuel. Pillai says his abductors suspended him from a ceiling fan and burned him with cigarettes.

To produce his fuel, Pillai cooks leaves and bark from his special plant for about ten minutes in hot water. The mixture is cooled and stirred after adding a little salt, citric acid and traces of a few unknown chemicals. Once allowed to settle, the liquid fuel, which is lighter than water, floats to the top and is separated by filtering. The entire process takes less than 30 minutes.

According to the Department of Science and Technology (DST) at IIT, laboratory tests have conclusively shown that the herbal fuel is a pure hydrocarbon similar to kerosene and diesel fuel. Engineers at IIT in Madras conducted static tests in two-stroke engines and concluded that the herbal fuel offered better fuel economy than petrol. The fuel "will have good potential in a four-stroke petrol as well as diesel engines," according to the engineers in Madras.

If he is not using trickery, how is Pillai doing it? One theory, offered by Ratna Choudhury of IIT, is that atmospheric carbon dioxide is sucked in during the reaction. The carbon dioxide combines with hydrogen liberated from water and forms the hydrocarbon fuel. She admitted, however, that she was just guessing. The Times of India has a different theory. They published a report which claimed that the entire exercise of promoting Mr. Pillai was to legitimize the sale of stolen petrol and diesel from tankers of Indian oil companies in Rajapalayam. He has no magic powers and no magic herb.

further reading

- [AMAZING FUEL FROM PLANTS!](#)
- [RAMAR PILLAI HERBAL FUEL](#) By Wesley Bruce
- [Online Forum on Herbal Fuel](#)
- [Ramar Pillai's bail plea dismissed](#)
- [Herbal Petrol Case](#)

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[Baron d'Holbach](#)



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Paul Henri Thiry, Baron d'Holbach (1723-1789)

Holbach was German by birth (Paul Heinrich Dietrich) and education, but French by fortune (he inherited his uncle's money, estate and title). Holbach's estate was a meeting place for the leading French radical thinkers (the *philosophes*) of the late 18th century. He was an [atheist](#), a [determinist](#), and a [materialist](#): the universe is a complex system of physical substances organized according to mechanistic laws of cause and effect, rather than designed by God (the view of most of his contemporaries, though not the common view among the *philosophes*).

Holbach was an opponent of absolute monarchy, state religions and feudal privilege. It is fair to describe him as one of the most radical intellectuals of his time. He authored many works whose radical ideas had to be published in Holland without his name on the title page. His most famous work is [The System of Nature](#) (1770). A briefer account of his atheistic materialism was published in 1772: *Good (or Common) Sense, or Natural Ideas vs. Supernatural Ideas*.

Holbach tried to prove by his life that one could be virtuous and an atheist, contrary to a common view of the time. [Rousseau](#), who disliked Holbach, used him as the model of the 'virtuous unbeliever' in some of his fiction. Holbach held that atheism is a prerequisite for any valid ethical theory. Religion, he thought, is based on useless and meaningless dogmas and rituals; whereas ethics must be based on social utility and human cooperation.

What is perhaps most puzzling about Holbach is that he brought together in his life two seemingly inconsistent views; for he was both a hard determinist and a social reformer. He believed that human beings are not special in the sense of having [souls](#) or [free will](#). We're part of Nature and our choices and desires are as much determined by laws of cause and effect as are the movements of the planets. Even so, he devoted himself to trying to make the world a better place by ridding it of unjust and degrading institutions such as the Church and Absolute Monarchy.

further reading

[Stanford Encyclopedia of Philosophy](#)

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[holistic medicine](#)

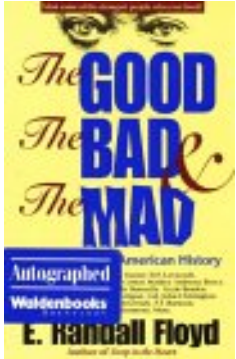


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hollow Earth theory

The hollow Earth theory holds that Earth is not a solid sphere but is hollow and has openings at the poles. Furthermore, an advanced civilization, the Agartha, exists within Earth. Their people include advanced spiritual and technological masters who sometimes foray into the atmosphere in their UFOs.

In the late 17th century, British astronomer Edmund Halley proposed that Earth consists of four concentric spheres and "also suggested that the interior of the Earth was populated with life and lit by a luminous atmosphere. He thought the [aurora borealis](#), or northern lights, was caused by the escape of this gas through a thin crust at the poles."^{*}

In the early 19th century, an eccentric veteran of the war of 1812 John Symmes (d. 1829) promoted the idea of interior concentric spheres so widely that the alleged opening to the inner world was named "Symmes Hole."^{*} In Hamilton, Ohio, his son erected a monument with a stone model of the hollow earth to commemorate his dad's incessant lobbying for an expedition to the North Pole to find the entrance to the world below. Martin Gardner writes that "It took Byrd's flight over the North Pole to deal a death blow to 'Symmes' hole'" (Gardner 1957, 41). However, later advocates hail Admiral Byrd as having actually gone into the hollow earth at both poles!^{*} This strange belief seems to be based on nothing more than the fact that Byrd referred to Antarctica as "The Land of Everlasting Mystery" and once wrote: "I'd like to see that land beyond the (North) Pole. That area beyond the Pole is the Center of the Great Unknown." Such evidence apparently suffices for the alternative scientist.

Edgar Allan Poe used the theme of the hollow earth in [The Narrative of Arthur Gordon Pym of Nantucket](#) (1838). Jules Verne wrote *Journey to the Center of the Earth* in 1864 and [Edgar Rice Burroughs](#) (1875-1950), the creator of Martian adventures and Tarzan of the Apes, also wrote [novels](#) set in the hollow earth. Legends often ignite the imagination of fiction writers and fiction often ignites the imagination of the [pseudoscientist](#).

In 1869, Cyrus Reed Teed, an herbalist and self-proclaimed alchemist, had a vision of a woman who told him that we are living on the *inside* of the hollow Earth. For nearly forty years, Teed promoted his idea in pamphlets and speeches. He even founded a cult called the [Koreshans](#) (Koresh is the Hebrew equivalent of Cyrus).

In 1906, William Reed published *The Phantom of the Poles* in which he

claimed that nobody had found the north or south poles because they don't exist. Instead, the poles are entrances to the hollow earth.* In 1913, Marshall B. Gardner privately published *Journey to the Earth's Interior* in which he rejected the notion of concentric spheres but swore that inside the hollow earth was a sun 600 miles in diameter. Gardner, too, claimed that there were huge holes a thousand mile wide at the poles. Byrd flew over the North Pole in 1926 and over the South Pole in 1929, but he didn't see these entrances to the nether world. It is pointless to point out this fact or to refer hollow earthers to satellite photographs that do not show holes at the poles. They are sure that there is a government conspiracy to cover up the truth.*

In the 1940s, Ray Palmer, co-founder of *FATE*, *Flying Saucers from Other Worlds*, *Search*, *The Hidden World*, and many other pulp publications, teamed up with Richard Shaver to create the [Shaver Mystery](#), a legend of a world of hollow earth people and an advanced civilization. Shaver even claimed to have dwelled with the inner Earth people. According to Richard Toronto, the FBI blamed Palmer and Shaver for concocting "[flying saucer hysteria](#)" in 1947, making them the true founding fathers of modern UFOlogy.*

The belief in a hollow Earth had some adherents in [Nazi Germany](#). There is even a legend which says that Hitler and his chief advisers escaped the last days of the Third Reich by going through the opening at the South Pole.

In 1964, Raymond W. Bernard, an esotericist and leader of the [Rosicrucians](#) published *The Hollow Earth - The Greatest Geographical Discovery in History Made by Admiral Richard E. Byrd in the Mysterious Land Beyond the Poles - The True Origin of the Flying Saucers*. The book is out-of-print but available on the [Internet](#). Bernard also authored *Flying Saucers from the Earth's Interior*. His real name was Walter Seigmeister. His doctoral dissertation was entitled "Theory and Practice of Dr. Rudolf [Steiner's](#) Pedagogy" (New York University, 1932). In his [Letters from Nowhere](#), Bernard claims to have been in contact with great mystics in secret ashrams and with Grand Lamas in Tibet. He was, in short, another [Gurdjieff](#). Dr. Bernard "died of pneumonia on September 10, 1965, while searching the tunnel openings to the interior of the Earth, in South America."* Bernard seems to have accepted every legend ever associated with the hollow Earth idea, including the notions that the [Eskimos](#) originated within the Earth and an advanced civilization dwells within even now, revving up their UFOs for occasional forays into thin air. Bernard even accepts without question Shaver's claim that he learned the secret of relativity before Einstein from the Hollow Earth people.

Finally, Diane Robbins has seen the light and claims that ADAMA receives [telepathic](#) messages from Telos, a city beneath Mt. Shasta in northern California, which are [channeled](#) by Laila and provide all kinds of wonderful

messages about perpetual peace and prosperity. You can read about it [online](#) or you can order "The Call Goes Out from the Subterranean City of Telos" for \$20 plus shipping. That seems like a small price to pay for such esoteric wisdom. There truly is a seeker born every minute.

further reading

- [The Shaver Mystery](#) by Richard Toronto
- [The Kook's Museum on the Hollow Earth](#)
- [The Unnatural Museum's Hollow Earth Page](#) by Lee Krystek
- [Alaska Science Forum/The Hollow Earth Theory](#) by Larry Gedney
- [The International Society for a Complete Earth](#)
- [Our Hollow Earth](#)
- [SpiritWeb on the Hollow Earth](#)
- [Nazis and the Hollow Earth](#)
- [The Hollow Earth](#) (a short history)
- [About.com Hollow Earth and Planets](#)
- [The Hollow Earth and Subterranean Kingdoms](#)
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[holistic medicine](#)

[Holocaust denial](#)



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[Shermer, Michael
and Alex Grobman.
*Denying History :
Who Says the
Holocaust Never
Happened and Why
Do They Say It?*](#)

Holocaust Denial and Nazism (National Socialism)

Nazism ('Nazi' is short for *Nationalsozialist*) is the term used to describe the nationalistic, anti-Communist, and anti-Semitic doctrines and policies of Goering, Goebbels, Himmler and Adolf Hitler's National Socialist German Workers' party. The Nazis ruled Germany from 1933 until 1945 when Germany surrendered and admitted defeat in their war of aggression which had initiated World War II. The Nazi party has been outlawed in Germany ever since.

The Nazis preached the superiority of the Aryan master race led by an infallible Führer (leader) who would establish a pan-Germanic Third Reich lasting a thousand years while annihilating the Jews and Communists, the main scapegoats for all Germany's problems. Millions of Jews, Poles, Russians, gypsies, Catholics, gays and handicapped people were interned in concentration camps where they died or were executed or experimented on. Millions more were used for forced labor.

Today, the term 'nazi' is used to designate anyone engaging in or ordering barbarous acts. The term is used to describe those who advocate force, including murder, of a variety of scapegoats whom they blame for their own, the nation's or the world's problems. Included in this list of scapegoats are homosexuals, blacks, liberals, foreigners, Muslims, Christians, Jews, Arabs, among others.

The term 'nazi' is also purposely chosen for self-description by groups of people who find solace and inspiration in the thoughts and actions of Adolf Hitler. The term is also used by anti-racists to describe groups such as the Ku Klux Klan, [Posse Comitatus](#), the [Gospel Broadcasting Association](#), and others who belong to the so-called [Christian Identity](#) movement. The danger of such people is not because they don't understand the evils of nazism, but because they do. They are part of a growing number of people who think there are conspiracies everywhere which can explain why their lives are so dreary and hopeless. They are part of a growing mass of deluded people who think they are superior because of a few genetic codes. They feel they should have a special place in the order of things, but are being denied because of a conspiracy to keep them down and elevate the weak and undeserving. Some neo-Nazis also pay homage to Satan and are great believers in the occult. However, it would be a mistake to think that occultism is the root of neo-Nazism. The causal connection is not a strong one.

It is true, however, that Nazism has sometimes been characterized by certain

skeptics as being significantly affected by occultists in high places. There were [occultists in high places in Nazi Germany](#). There were also Christians in high (and low) places in Nazi Germany. However, to find a causal link between belief in the occult and nazism is a stretch. Think of all the occultists, Christians and other supernaturalists, who have occupied the White House lately. Was Ronald Reagan another Adolf Hitler, and Nancy Reagan another Eva Braun? Is the CIA's waste of time and money on psychic spies proof that democracy in America is at an end? I think the historical evidence is overwhelming that belief in the occult, the supernatural, the paranormal and pseudoscientific knows no political boundaries. Nor does racial hatred.

The malicious treatment of the Jews and other "undesirables" at the hands of the Nazis is referred to as the Holocaust. It has become a symbol of evil in our times. Like many symbols, the Holocaust has become sacrosanct. To many people, both Jews and non-Jews, the Holocaust symbolizes the horror of genocide against Jews, homosexuals, "Gypsies," Soviet prisoners of war, and the handicapped. Some modern anti-Semites have found that attacking the Holocaust causes as much suffering to some Jews as attacking Jews themselves. The term for attacking any aspect of the symbology or mythology of the Holocaust is "Holocaust Denial." It seems to be the main motivation for the [Institute for Historical Review](#) and its *Journal of Historical Review* which since 1980 has been publishing articles attacking the accuracy of this or that claim about the Holocaust. Yes, one "historical" journal devoted almost exclusively to the issue of making the Holocaust seem like an exaggeration of biased historians. This institute was founded in 1978; it claims to be a "research, educational and publishing center devoted to truth and accuracy in history." If truth and historical accuracy were the *only* goals of this group, I doubt that it would cause such an uproar. However, it seems that its promoters are as concerned with spreading prejudice as they are with truth. Thus, even those inaccuracies which they correctly identify are met with scorn and derision. For they never once deal with the central question of the Holocaust. They deal with numbers: *were there six million or four million or 2 million Jews who died or were killed?* They deal with technical issues: *could this shower have been used as a gas chamber? Were these deaths due to natural causes or not? Did Hitler issue a Final Solution order or not? If so, where is it?* I am not saying that these are not legitimate issues, nor am I saying that such inquiries should be taboo. What I'm saying is that the Holocaust deniers do *not* deal with questions concerning the racial laws that led to the arrest and imprisonment of millions of Jews in several countries for the "crime" of race. They do not concern themselves with the policy of herding people like animals and transporting them to "camps" where those who did not die of disease were starved to death or murdered, or, if they were "fortunate," lived to perform forced labor. They don't address the moral issues of medical experimentation on humans, of persecution of homosexuals and the infirm. Why not?

Michael Shermer devotes two chapters of [Why People Believe Weird Things](#)

(1997) to the arguments of the Holocaust Deniers. (In *Denying History: Who Says the Holocaust Never Happened and Why Do They Say It?* [2000] Shermer and co-author Alex Grobman devote nine chapters to the subject.) He takes up many of their arguments and refutes them one by one. For example, one of the favorite appeals of the Holocaust deniers is to demand some proof that Hitler gave the order for the extermination of the Jews (or the mentally retarded, mentally ill, and physically handicapped). Holocaust deniers point to Himmler's telephone notes of November 30, 1941, as proof that there was to be no liquidation of the Jews. The actual note says: "Jewish transport from Berlin. No liquidation." Whatever the note meant, it did not mean that Hitler did not want the Jews liquidated. The transport in question, by the way, was liquidated that evening. In any case, if Hitler ordered no liquidation of the Berlin transport, then liquidation was going on and he knew about it. Hitler's intentions were made public in his earliest speeches. Even as his regime was being destroyed, Hitler proclaimed: "Against the Jews I fought open-eyed and in view of the whole world....I made it plain that they, this parasitic vermin in Europe, will be finally exterminated." Hitler at one time compared the Jews to tuberculosis bacilli which had infected Europe. It was not cruel to shoot them if they would not work or if they could not work. He said: "This is not cruel if one remembers that even innocent creatures of nature, such as hares and deer when infected, have to be killed so that they cannot damage others. Why should the beasts who wanted to bring Bolshevism be spared more than these innocents?"

In my view, however, the racist community doesn't believe its false notions about the Holocaust for any of the reasons for weird beliefs listed by Shermer. They believe them because such beliefs are empowering. They make the believer feel superior and they allow evil to be rationalized as good. Ultimately, many weird beliefs are the beliefs of groups, not isolated individuals. Understanding the dynamics of social belief is no small undertaking and certainly goes beyond wishful thinking and laziness. The Holocaust deniers feed off of each other's anti-Semitism. But what gave birth to their hatred of the Jews? Resentment and projection of their own inadequacies onto another race? Perhaps. That was Sartre's argument, following Nietzsche's lead, in *Anti-Semite and Jew*. The Holocaust Denial seems based upon wanting to believe because the belief fits in with the believer's prejudices.

See related entry on the [Protocols of the Elders of Zion](#).

further reading

[reader comments](#)

- [The Nizkor Project](#) "Nizkor" is a Hebrew word meaning "we will

remember."

- [Nazism and the Occult](#)
- [The Nazis And The Occult](#) Lowell K. Dyson, Ph.D. Columbia, 1968
- [How Himmler fell under the spell of witches](#)
- [U.S. Holocaust Memorial Museum](#)
- [Giving the Devil His Due: Holocaust Revisionism as a Test Case for Free Speech and the Skeptical Ethic](#) by Frank Miele
- [The Journal for Historical Review](#)
- [Mass Media Funk: the David Irving libel suit against Deborah Lipstadt](#)
- More [Mass Media Funk: the David Irving libel suit against Deborah Lipstadt](#)
- [Reporting Revisionism](#) by Eric Umansky

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[Shermer, Michael and Alex Grobman. *Denying History : Who Says the Holocaust Never Happened and Why Do They Say It?* \(University of California Press, 2000\).](#)

[Shermer, Michael. *Why People Believe Weird Things: Pseudoscience, Superstition, and Other Confusions of Our Time* , chs. 13 and 14 \(W H Freeman & Co.: 1997\).](#)

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Why People Believe Weird Things: Pseudoscience, Superstition, and Other Confusions of Our Time

by Michael Shermer
(W H Freeman & Co., 1997)

Skeptics have been treated to several publications in recent years which might indicate that there is some hope for rationality after all. Sagan's [*Demon-Haunted World*](#) and Randi's [*Encyclopedia*](#), for example, have done quite well. Michael Shermer's book is yet another attack on irrationality and unreason to find its way into print. Yet, lest we get too optimistic we might take a lesson from one of Shermer's debunking experiences.

In the prologue, Shermer gives an account of [James Van Praagh](#) whom he calls "the master of [cold-reading](#) in the psychic world." He describes Van Praagh's success and how he wowed audiences on NBC's New Age talk show *The Other Side*. Shermer then tells us how he debunked Van Praagh on *Unsolved Mysteries*. Yet, none of the others in the audience was sympathetic to Shermer. One woman even told him that his behavior was "inappropriate" because he was destroying people's hopes in their time of grief. (Van Praagh specializes in being contacted by anybody's dead relatives.) Van Praagh is still going strong, having appeared recently (Dec. 10, 1997) on the Larry King Live show. He said he could "feel" Larry's dead parents and even pointed out where in the room these feelings were coming from. James took phone calls on the air and, once given a name, he started telling the audience what he was "hearing" or "feeling". He fished for positive feedback and got it, indicating that he really was being contacted by spirits who wanted to tell their loved ones that being dead ain't so bad when you've got a guy like James to talk to on Larry King Live. Larry didn't ask Van Praagh why he thought that billions and billions of dead souls were turning away from eternal life to get inside Van Praagh's head. Had Van Praagh told Larry that his parents were sorry for abusing him as a child and now request that Larry go public about his sadistic sexual practices with animals, Van Praagh would be history. But the charlatans of the world wouldn't be where they are if they tried to tell people what they don't want to hear. As long as they feed the hopes and dreams of their victims, the psychics will flourish. Of course, if they can't handle their finances they'll go broke like the Psychic Friends Network did. Otherwise, if they keep feeding the fish, the fish will return.

So, why do people believe weird things? "More than any other, the reason people believe weird things," says Shermer, "is because they want to. . . .It feels good. It is comforting. It is consoling." Secondly, weird beliefs offer "immediate gratification." People like weird beliefs because they are simple. Weird beliefs also satisfy the quest for significance: they satisfy our moral needs and our desire that life be meaningful. Finally, he says, people believe weird things because weird things give them hope.

You would think Shermer would know, for he has walked through the valley of weirdness as a believer and a challenger. He's been abducted by aliens and had colonic irrigation. He's been to the chiropractor to get aligned and balanced. He's been to many alternative health practitioners to get "purified" and "detoxified". He's been Rolfed and wrongly diagnosed by an iridologist.

He's also been on a number of talk shows where he has faced not only psychics but those who deny that the Holocaust ever happened. He's confronted [creationists](#) and [spiritualists](#) on national television. He started [Skeptic magazine](#) and the [Skeptic's Society](#). He has written many articles on various weird beliefs. In short, Michael Shermer has entered the lion's den, walked through the valley of death and known firsthand the wailing and gnashing of teeth.

Even so, Shermer seems to have overlooked or underemphasized some fundamental reasons why people believe weird things. *Ignorance*, for example, seems to be the main reason many people believe weird things. They simply do not know any better. If they had some knowledge about physics, chemistry, biology, memory, the brain, the body, etc., they would not even consider many of the crackpot ideas put forth for their consideration. Only a person ignorant of physics and neurology could consider it reasonable that wearing a [takionic](#) headband will improve thinking or that [alpha waves](#) are a sign one is entering a transcendent state of consciousness. A great deal of New Age quackery about "energy" medicine depends upon people being ignorant of quantum physics. It is unlikely that Shermer would have tried the detoxification regimes he did had he been more knowledgeable.

Ignorance might explain why 90% of [Deepak Chopra's](#) followers believe him when he tells them that happy thoughts make happy molecules, but it doesn't explain why Chopra himself believes the mind can have a causal effect on the molecular level. He is a trained physician and knowledgeable of biology. It does not seem to be a very satisfactory explanation to say that he and other New Age gurus believe that disease can be controlled by thought because they *want* to believe so. The *will to believe* explanation seems too facile. Even William James, who has given us this expression from the title of an essay, did not try to explain most weird beliefs by claiming they were acts of will. James reserved using will alone to determine belief for those cases where (a) a decision must be made and (b) the evidence is equal on either side of the issue. Furthermore, he recognized that only some beliefs are *living options* for

each individual. A devout Christian could no more accept the possibility that Mohammed is the Prophet of God than a devout Muslim could accept Jesus Christ as his Lord and Savior. Not every claim is a living option for every person. Sheer willfulness should only be used to explain choosing one living option over another when the evidence for each is equal. Such a situation is definitely not the case for believing in the power of thought to control disease. The evidence is overwhelmingly against such a belief. What is of interest is why certain incredible and improbable claims are living options for some people and not for others.

It is obvious that the difference cannot be explained in terms of differing intelligences. Duane Gish and the creationists, Willis Carto and the Holocaust deniers, and physicists John Barrow and Frank Tipler--to name just a few of those Shermer takes on--are at least as intelligent as their opponents. When an intelligent person believes something for which there is little more than faith to support the belief, what else can you say except that the person believes simply because he or she wants to?

For example, Barrow and Tipler think they have a new and improved [argument from design](#) which uses only physics to prove God exists. And Tipler thinks he has proved the immortality and the resurrection by physics alone. Yet despite his enormous intellectual endeavors to prove Christianity by physics, Tipler comes off a bit disingenuous when he admits that the only thing really going for his theory at this point is its "theoretical beauty." Since beauty is in the eye of the beholder, that is not saying much. In short, for all his brilliance, Tipler's theory is an elaborate construction which can only be accepted on faith. Since there are probably only a handful of people who could even understand his argument, refuting it seems unlikely to be very rewarding, but Shermer gives it a go. The argument is very complicated and likely to produce more yawns than hurrahs.

Likewise for his essay on Ayn Rand and her cult of followers. Other than being an example of colossal self-deception and egoism, the debunking of a second-rate metaphysician and the cult of adoration which grew up around her is of little more than historical interest. He might as well have done an essay on the Beatles and their adoring fans. Rand did not claim Objectivism is a science, but a philosophy. It's not a very interesting philosophy, nor was it innovative, despite what she and her followers believed.

The argument against Carto and his anti-Semitic band is much easier to swallow and to follow, and the rewards are much more gratifying. For all those sucked in by the tempting arguments of the [pseudohistorians](#) of Nazism, chapter 14 of Shermer's book is a must read. He not only explains the methodology of the the Cartophiles, he responds with specific evidence to their arguments. For example, one of the favorite appeals of the Holocaust deniers is to demand some proof that Hitler gave the order for the extermination of the Jews (or the mentally retarded, mentally ill, and

physically handicapped). [Holocaust deniers](#) point to Himmler's telephone notes of November 30, 1941, as proof that there was to be no liquidation of the Jews. The actual note says: "Jewish transport from Berlin. No liquidation." Whatever the note meant, it did not mean that Hitler did not want the Jews liquidated. The transport in question, by the way, was liquidated that evening. In any case, if Hitler ordered no liquidation of the Berlin transport, then liquidation was going on and he knew about it. Hitler's intentions were made public in his earliest speeches. Even as his regime was being destroyed, Hitler proclaimed: "Against the Jews I fought open-eyed and in view of the whole world....I made it plain that they, this parasitic vermin in Europe, will be finally exterminated." Hitler at one time compared the Jews to tuberculosis bacilli which had infected Europe. It was not cruel to shoot them if they would not work or if they could not work. He said: "This is not cruel if one remembers that even innocent creatures of nature, such as hares and deer when infected, have to be killed so that they cannot damage others. Why should the beasts who wanted to bring Bolshevism be spared more than these innocents?"

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Shermer does an admirable job of presenting Duane Gish's case for "[scientific creationism](#)" and then dismantling it. Here, too, I think the creationists want to believe Gish because his claims fit in with their own prejudices. One of my correspondent's, Claud Roux of France, wrote me about an all-night debate he had with a creationist.

I started a dispute with this person which lasted until dawn...I was absolutely baffled by how much this person was insensitive to any arguments which would contradict his strong beliefs about a world made in 7 days... I couldn't find any flaw in his armor so that I could introduce a hint of questioning in his mind...If I gave him a scientific argument, this would be considered as a lie nourished by an army of scientists. In fact, there was a strong belief in all that he said that science was another religion opposed to the traditional

religions. The discussion with this person was not a debate over the pertinence of a theory, but rather a fight between two different religions, science being a religion invented by the devil to "disbalance [desequilibrer]" the world. His personal fight was not to prove that science was wrong but to prove that science was evil...

Science is evil because it is perceived to be very threatening to the creationist's religious beliefs. That intelligent people might adhere to weird beliefs mainly because they offer solace and refuge from other, terrifying beliefs, implies that the mind is often used to construct delusions as a kind of safety net. Let me give another example for another correspondent. Carol Lazetsky of Austria via England wrote me about a friend of hers who had received a Ph.D. in biology. The biologist's parents are also biologists and were pioneers in the legalization of euthanasia movement in Holland. Lazetsky writes that the daughter biologist with the Ph.D. was having a problem with her parent's stand on euthanasia.

. . . and she started to have some sort of therapy. I then moved to Ireland and we lost touch, however, I had a few letters in which she touched upon the fact that she had become involved with the church and seemed to be getting some relief from her problems. We lost touch even more and then I had a letter from her after moving to Austria. Her letters had become more and more frantic and her thoughts seemed to have become disjointed, until 2 years ago at Christmas I had a letter which was totally incomprehensible and muddled up. I was worried when I got the letter but didn't react much since I felt I could do little from so far away. However, the alarm bells really started to ring when I received a brochure from her a year later when she told me that she had started working from home and had set up a therapy studio for [reflexology](#). There was a whole load of glossy brochures with maps of feet and a résumé of her stating her qualifications as a biologist (which seemed to make her business sound believable). She then told me she was "studying" a lot to open up a "Spinal Correction" practice and was into all sorts of "New Age" theories including [crystals](#), [auras](#) and chanting. Her marriage had nearly fallen apart because of her new ventures, but her husband was getting used to it, she said.

I find this all very alarming and dangerous since it seems to me that these practices have robbed her of her identity and her reason. They nearly robbed her of her family and they are most definitely robbing her purse. I felt that as we had once been good friends that it was only decent of me to be honest with her and I

wrote and told her how I felt about what she was doing. I knew that I may not hear from her again, but I thought it would be insincere of me not to write and tell her what I thought. I never heard from her again.

One facile explanation is that the young biologist has gone mad. This may be true and it may explain her conversion from scientist to pseudoscientist, her new interest in religion and New Age mysticism, and her disjointed thinking. The chemicals in her brain may have become redistributed, causing her to have a serious thought disorder. This is possible and we should not dismiss this possibility out of hand just because there is a stereotype of the mad as out of control, completely irrational, babbling idiots. The mad are often quite intelligent and restrained, even polite or reclusive, even if their thoughts are illogical and their judgment unsound. However, there is another possibility here. Perhaps she is not mad, but deeply troubled. She had followed in her famous parent's footsteps and become a scientist. But her parents are leaders of the euthanasia movement and euthanasia is something which repulses her. Rather than risk becoming "evil" like her parents, she leaves science and goes into something much safer. She enters a world of deluded but very happy, hopeful and caring people. The reasons for choosing reflexology rather than iridology or some other form of quackery are probably unimportant. It is probably by sheer accident that she fell into one bit of nonsense rather than another. The point is that we search in vain for why she believes in reflexology if we search for a logical explanation. To say she believes because she wants to believe is trivial. She believes because she does not want to follow in the footsteps of her scientific parents, because she does not want to bring evil into her life, because she wants hope and wants to do good. Perhaps.

There is probably a long list of reasons why people want to believe certain things, but in the end they all amount to the same thing when looked at from the other side: it is generally pointless to produce counterarguments to their beliefs except to persuade some third party who might listen to both sides and realize which side has the stronger evidence.

Another significant factor in weird beliefs, not mentioned by Shermer, is **communal reinforcement**. If others believe the same non-sense, it is often very difficult or dangerous to challenge the beliefs. For example, I have my philosophy of law students read a racist essay by an intelligent, educated lawyer and leader of the Confederacy during the Civil War. The essay makes one false claim after another regarding the physical, intellectual and moral nature of black people. Each of the claims is put forth with comments indicating that everybody knows this and it is scientific fact. My students invariably ask: *How could anyone believe this stuff?* The answer is simple: if your parents, teachers, ministers, and everyone else in your circle believes it, and contrary opinions are banned, why wouldn't you believe it, too?

Other beliefs seem to be adhered to simply because they are *possible*. Even though the evidence is overwhelmingly against them, why do people believe in such things as dowsing? Many, of course, believe because they do not understand how easy it is to deceive ourselves. They do not understand the need for [controlled studies](#) to eliminate self-deception from influencing our beliefs. Yet, others seem to believe such things simply because they are possibly true. They are unaware of the fallacy of the [argument to ignorance](#). However, simply because a claim is *possibly* true--in the absolutely loosest sense of the term 'possibly'--does not mean it is reasonable to use an act of will alone to accept the claim. In fact, for reasonable people, such claims are not living options because they contradict what has been established beyond a reasonable doubt. However, even though the evidence seems to be preponderantly on one side, there will always be those who claim that they do not believe that the evidence against a belief is overwhelming. That was James' view of the evidence regarding belief in God; the evidence for was proportionate to the evidence against, he thought. But he never *proved* that the evidence was equal for atheism and theism. He assumed this to be the case. It seems to me, however, that it is only politeness which grants him this point. The evidence is overwhelmingly against anything like the God of the western religions existing. How a Bernie Segal or a Deepak Chopra or a John Mack can steadfastly maintain their weird beliefs in the face of overwhelming evidence against them seems explicable only if one assumes they are acting on *faith* alone.

Even so, why do some people have faith? Why do they choose to believe preposterous, incredible, improbable claims? Shermer's explanation in terms of hope, simplicity, immediate gratification, and providing meaning to one's life seems to cover most of the reasons for faith. But the desire for power should also be included in this list of fideistic motivators. Such beliefs give the illusion of control over things which are either out of one's control or which require diligent effort and intellect to effect reasonable control.

However, what is most valuable about Shermer's book is not his attempt at the psychology of belief, but his criticisms of specific weird beliefs. He has especially detailed criticisms of creationism and Holocaust denial. There are fairly straightforward chapters on Edgar Cayce, near-death experiences and alien abduction. There is a chapter on the repressed memory witch hunts, among other things.

He even has a section on [altered states of consciousness](#) (ASC) which he prefaces with a remark that most skeptics will question his account of ASC. Shermer considers the [hypnotic state](#) to be an ASC, for example. He doesn't do much to bolster his case by quoting a straw man argument from Kenneth Bowers who trivializes [Nicholas Spanos'](#) cognitive-behavioral explanation in terms of role playing by calling it "the faking hypothesis." Playing a social role is not the same as "faking." Next, he considers sleep to be a state of consciousness, rather than unconsciousness, because we dream while

sleeping. Finally, he produces a set of EEG readings to designate what he calls six different states of consciousness, one of which is the coma. He says: "If a coma is not an altered state, I do not know what is." Let me fill in the enthymeme using *modus ponens*. "A coma is not an altered state. Therefore, you do not know what an altered state is." On Shermer's criteria, sneezing would be an altered state. So would coughing. Each is likely to produce a distinct EEG reading. I find his argument puzzling, since he defends the view that sleep, deep sleep, drowsiness and coma are altered states of consciousness by appealing to the fact that they produce different squiggles on an EEG. But he defines an altered state *subjectively*, in terms of self-consciousness and self-control. "When there is a significant interference with our monitoring and control of our environment," he says, "an altered state of consciousness exists." People who are interested in altered states of consciousness, such as [Charles Tart](#), think they are gateways to transcendent truths. I would agree that ASCs are brain states, but not every brain state is an ASC. I certainly would not include sleep or coma as ASCs because they are not states of consciousness at all. I understand the term ASC to refer to an altered state of *consciousness*. Unconscious states, such as sleeping, coma, concussion, fainting, etc. are not ASCs because the person is unconscious by definition. I take it for granted that to have an altered state of consciousness one must be conscious. On Shermer's analysis, I suppose *death* would be the ultimate altered state of consciousness: the flatline EEG.

Overall, Shermer's collection of essays is a welcome addition to the growing body of skeptical literature that has for so long been wanting but is beginning to shed a little light in the darkness.

further reading

[Huston, Peter. *Scams from the Great Beyond : How to Make Easy Money Off of Esp, Astrology, Ufos, Crop Circles, Cattle Mutilations, Alien Abductions, Atlantis, Channeling, and Other New Age Nonsense* \(Paladin Press, 1997\).](#)

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[Order Why People Believe Weird Things from Amazon Books](#)



SkepDic.com

[Nazism and
Holocaust Denial](#)

reader comments:

Nazism and Holocaust Denial

31 May 1997

They deal with numbers: were there six million or four million or ? Jews who died or were killed? They deal with technical issues: could this shower have been used as a gas chamber? Were these deaths due to natural causes or not? They deal with minor facts: did Hitler issue a Final Solution order or not? If so, where is it? What they do not deal with is the question of racial laws, of arresting and imprisoning millions of people in several countries for the crime of "race," of herding people together like animals and transporting them to "camps" where millions died of disease, malnutrition, or were murdered. What the Holocaust deniers do not deal with is racial hatred. I do not wonder why.

In regards to the above, if we do not make sure that we are telling the whole truth about the holocaust then eventually everyone may be "deniers". Were the showers used for gassing or not? What evidence is there either way? Did most victims die from disease and starvation or were they burned alive or gassed? I don't see how anyone could argue that Hitler's policies were ok or benign. Of course it is evil to do the things Nazi Germany did. Lying about the details only makes folks question the whole story. That is not the way to make sure it never happens again.

The evidence for using the showers for poisoning people is readily available. Your use of the word "lying" seems to reveal a less-than-sincere concern for the truth. You seem to assume that historians, politicians, journalists, survivors, witnesses and soldiers who reported the story of the Holocaust are all "liars." Why?

Stalin is said to have had 30 million of his citizens killed but we never hear anything about the crimes of the Soviet Union. Pol Pot is said to have had 4 million Cambodians killed just for being educated or appearing "smart", yet where is the outcry? I am not saying that these people were right in their actions, I am saying that these are evil manipulative mass-murderers. The policies advocated by these individuals cannot be "sugar-coated" into being anything less than evil defined. But we must get the details straight. So I ask again, was it 6,000,000 or 4,000,000 or (most likely) 1,500,000? Was it gas or neglect?

I don't know where you get your history or your news, but it is obviously not from the same sources with which I am familiar. I've never read a sugar-coated account of Stalin or Pol Pot. In any case, what does that have to do with your loaded question: "was it gas or neglect" that killed the victims of Nazism in the concentration camps? You've raised a false dilemma. Many died of neglect and many were gassed. You seem to think you have the data to prove that the number of those who died in the camps was 1.5 million. Publish your arguments for all to examine.

I don't see revisionism espousing the ideals of Nazism or race-hate. I do see revisionism as a healthy way to keep the facts straight as to what really did happen. I remember as a small child the number of Jews murdered by Hitler being 4,000,000. Now they all say 6,000,000 why would there be 2 million added in twenty years? Maybe the answer has something to do with the incomprehensibility of such large numbers, or for effect. We need to get the numbers right.

Lane Walker

If you think it is "healthy" to blithely call thousands of witnesses and authors "liars" because they haven't handed you a list with the names of every victim or a detailed order sheet for poison and notebooks from the death camp operators, then I suggest your criteria for truth are such that it is unlikely you will ever be satisfied with mere numbers. And I stand by what I wrote: Holocaust revisionists deal with minor details and ignore such major themes as "the question of racial laws, of arresting and imprisoning millions of people in several countries for the crime of "race," of herding people together like animals and transporting them to "camps" where millions died of disease, malnutrition, or were murdered. What the Holocaust deniers do not deal with is racial hatred."

4 Jun 1997 - Mr. Walker replies

In regards to your answer, The reason I (and others) do not concentrate on the legal and moral aspects of this event is because no one, unless they are deranged, thinks that race laws, herding, starving, torturing, imprisoning, even hating are acceptable. If your beef is with folks who condone Hitler's policies then I am in your corner. Whether it is in Russia, Cambodia, Germany, Bosnia, or even in America (Japanese in WW2, Indians) putting people in concentration camps and not caring for their needs is a crime against all humanity. I am not trying to "sugar-coat" what happened to the Jewish people. They were mistreated terribly and it was more than just wrong. But there should have been a near exact body count after the war. The Nazis were supposedly fanatical record keepers. That is where a lot of the evidence presented at Nuremberg came from. I cannot understand the addition of 2,000,000 victims since the 70's. The reason I said 1.5 mil is more

likely number is because the more you tell a story, the greater the numbers become. If there had been an "official" number given a few years after the war and it was still the same number then there would be no real way to question it. However, the number of victims has risen as the years have passed and there is no way to account for this unless you take deception (whether intentional or not) as a possible reason. I am not a Holocaust denier in the sense that I don't believe Jews were murdered at the hands of the Nazis and their allies. I only question the details because they are the only thing open to questioning. The rest of the story cannot be denied. It is established fact. I bear animus towards no race or even individual, all are God's creatures and I am no better than any other. But the fact that it is a criminal offense to say you question the details of the holocaust in most of Europe makes me suspicious that there may not be a solid defense when the details are questioned. I cannot trust any government to tell the truth. They have horrible track records when it comes to official versions and the like. I can easily be convinced that there were 6 million people. I do not need to see the documents, I do need to see the conclusions reached by the men who were on the scene immediately after Germany fell. I have read emotion heavy accounts of what happened - Anne Frank, Schindler's list, etc. I have never seen a transcript of those who found the camps but did not live there. I guess what I am saying is that I need to hear it from someone who was there, but has not sought to profit from it or tell it a million times a year for a fee. I want to hear it from the American and Soviet soldiers who found these camps and wrote letters home about what they saw. I want to read their reports. I will then be convinced if their story is the same as the one I hear everywhere else. I hope you will also post this clarification along with my previous letter.

Have a nice day!

PS If you know where I can get these reports on the net, I will look at them.

Lane Walker

Jesus is coming soon!! Are you ready?

reply: Was it also Jesus who said that *there are none so blind as will not see?* You have an interesting criterion for evidence. Do you expect someone to deliver the documents to your door?

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[SkepDic.com](http://skepdic.com)

Search the Skeptic's Dictionary



SkepDic.com

In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

11

May 10, 2000. A few months ago [we noted](#) that [Kepler College](#) in Seattle was "seeking authorization by the Washington State Higher Education Coordinating Board to offer degree programs" in astrology. The college has now received authorization to offer both bachelor's and master's degrees in astrological studies. The first president of the college is Systems Analyst [Enid Newberg](#), who "uses astrology only for her own personal growth" but "has been involved in the field in both research and consulting since 1973."

If Kepler College doesn't suit your needs, there is always the [International Institute for Alternative Medicine](#), where one can get a Ph.D. for 100,000 rupees.

[thanks to Mogens Winther]

May 9, 2000. [Reflexologists](#) better stay clear of Japan where their trade is considered a cult and can get them arrested, according to [YahooNews](#).

May 6, 2000. "Two million people died of AIDS in sub-Saharan Africa in 1999 - 85 percent of the total world deaths from the disease in a region that accounts for only 10 percent of the world's population," according to Andrew Selsky of the [Associated Press](#). [Dr Christian Fiala](#), however, thinks the numbers are greatly exaggerated and that there is no clear definition of AIDS being used to make these diagnoses. Furthermore, he believes that dirty needles rather than promiscuous heterosexual behavior (a Christian missionary myth) is the cause of much of the misery in Africa.

South Africa's President [Thabo Mbeki](#) seems convinced that HIV is not the cause of AIDS and current treatments cause rather than effectively treat AIDS. (The arguments for this view are posted at www.virusmyth.com/aids/index.htm). He refuses to provide the "anti-AIDS drug AZT to HIV-positive pregnant women. He declared the drug too dangerous to use even though it has been proved that AZT drastically cuts the chances of newborns contracting the deadly virus." At a recent conference in Pretoria, Mbeki invited "U.S.-based researcher Peter Duesberg, a scientific outcast for his theory that AIDS is caused not by the human immunodeficiency virus but by illegal drugs and AZT." I didn't know illegal drug use and AZT were that popular in Africa. Anyway, [Duesberg is not alone](#) in his [skepticism about HIV and AIDS](#). [Nicholas Regush of ABCNews.com](#) shares this skepticism and thinks that the current model of HIV and AIDS is propaganda put forth by "mediocre scientists" whom he challenges to a public debate.

The [Center for Disease Control and Prevention](#) and the [National Library of Medicine](#) have a different opinion.

update: May 25, 2000. [South African president defends controversial AIDS policies](#)

further reading

- [U.N. warns AIDS could kill half the teens in some African nations](#)
- [AIDS threatens to devastate South African economy](#)
- [Mass Media Funk 13](#)

[thanks to Jon Henrik Gilhuus and Ed Hill]

May 5, 2000. What happens when religious groups take over social services, as in Texas? Find out about George W. Bush's bold program in the [WashingtonPost.com](#).
[thanks to Jon Henrik Gilhuus]

April 29, 2000. Cult critics ripped [falun gong](#) at a "Cults and the Millennium" conference in Seattle, according to the [SF Chronicle](#). Critics says it is a [cult](#) in the worst sense, whose authoritarian leader advises members not to think, not to seek medical care, and not to associate with family members who won't join the group. They are waiting for the aliens to take over the world. Defenders say the cult gives them peace of mind.
[thanks to Joe Littrell]

April 26, 2000. [CNN.com](#) reports that Ohio's state motto has been found unconstitutional by a federal appeals court. "*With God, all things are possible*" was taken from a Bible passage and expresses "a uniquely Christian thought," according to a panel of the 6th U.S. Circuit Court of Appeals. The 2-1 ruling reverses a lower court's decision permitting Ohio to use the motto.
[thanks to Rob Long]

April 25, 2000. [Memories of Things That Never Were](#) by Jane Brody (NY Times 4/25/00) gives an account of various abuses by therapists who use hypnosis, guided imagery, and group pressure to "help" patients ["recover" memories of sexual abuse](#). One woman was so brutalized by her therapy that a psychiatrist diagnosed her as suffering from post-traumatic stress disorder due to her [repressed memory therapy!](#)
[thanks to Tim Boettcher]

April 22, 2000. A study in Norway has found that chiropractic is ineffective in the treatment of colic, according to [VG Net](#).

Jon Henrik Gilhuus has provided a translation of the story:

"Chiropractic useless against colic"

Chiropractic treatment of children with colic has no impact on colic

pains, a new study at the pediatrics dept of Haukeland Hospital shows.

The study, which included 86 infants, is the largest ever done in this field, reports NRK (Norwegian State Broadcasting Company). The study was carried out by chiropractor Steinar Forshei and three doctors.

Forshei has treated infants himself and is surprised by the results. He believes that one reason why chiropractic can seem to work is that the treatment makes parents feel that they are taken care of.

April 21, 2000. The [chupacabra](#) is off the hook; dogs have been killing livestock in Chile, according to [Yahoo](#).

[thanks to Joe Littrell]

April 20, 2000. Dr. [Nicholas J. Gonzalez](#), an advocate of the Gerson coffee enema cancer treatment has been found guilty of negligence for the second time, according to [FoxNews.com](#). In 1997 he was ordered to pay more than \$2 million to the family of a patient. This time he was dinged only \$282,000. Yet, the National Center for Complementary and Alternative Medicine has committed over \$1.4 million of our tax dollars over five years to study Gonzalez's [crackpot](#) cancer "cure".

[thanks to Tony Fabris]

April 20, 2000. Two large studies published in *The New England Journal of Medicine* cast doubt on the anti-cancer benefit of eating low-fat, high-fiber diet, according to [Jeff Donn, Associated Press Writer](#). Another study published in January 1999 came to the same conclusion.

April 19, 2000. [Once again](#), a person of faith claims God put a gold crown on her tooth. Her dentist denies it, though he admits he misled her into thinking God had changed a porcelain crown to gold because "he didn't want to dash his patient's faith in a miracle," according to the [Birmingham News](#).

[thanks to Joe Littrell]

April 18, 2000. Satellite photos of [Area 51](#) are now available on the Internet at [www.teraserver.com](#), according to the [Salt Lake Tribune](#). No aliens are visible, however.

April 17, 2000. A Southern California school district which banned the Ten Commandments from being posted on a fence at a high school baseball field acted properly, according to two appeals courts and the U.S. Supreme Court. A local businessman thought he would be clever and put the Ten Commandments on advertising space he rented from the school, but the courts ruled (and the Supreme Court refused to hear the man's appeal) that the school has a right to exclude subjects "that would be disruptive to the educational purpose of the school." The businessman claimed his freedom of speech was being violated, according to the [Nando Times](#).

April 16, 2000. *English Church Attendance Survey*, an independent study of all denominations done by Dr. Peter Brierley, claims that only 7.5 per cent of the

population in England went to church on Sundays last year and that in the past 10 years church attendance dropped by 22 per cent. At this rate, he says, the Christian Churches will be dead in 40 years. Read about this exciting development in the [Independent News](#).

Contrast this with the results of a study done in the United States on media coverage of religion and the increase in the percentage of journalists who attend religious services. According to the [WashingPost.com](#), religious coverage doubled from the 1980s to the 1990s and the percentage of journalists attending religious services in 1980 was 14%, compared to 30% in 1995.

[thanks to Jon Henrik Gilhuus]

April 14, 2000. According to [Variety](#), Chris Carter, creator of the *X-Files*, a television drama given to uncritical acceptance of a world in which the laws of science and the rules of evidence need not apply, is said to be in negotiations to produce a full-length film on Ted Serios based on Jule Eisenbud's book *The World of Ted Serios: 'Thoughtographic' Studies of an Extraordinary Mind*. Mr. Serios claims he can produce images on film with his thoughts ([thoughtography](#)), a feat which would require rewriting the laws of physics.

[thanks to Joe Littrell]

April 13, 2000. [WebMD](#) reports that we're more likely to find vitamins conducive to good health in our kitchen than in our bathroom...if you have foods such as fresh fruits, vegetables and nuts in the kitchen. According to a recent report by the [Institute of Medicine \(IOM\)](#) pill supplements for vitamins C and E, selenium, and carotenoids have no proven role in preventing disease. IOM recommends a ceiling on daily consumption of selenium and vitamins C and E to reduce the risk of adverse side effects from overuse. The [full report](#) is available from IOM.

April 11, 2000. Holocaust denier David Irving lost his [libel suit](#) against American scholar Deborah Lipstadt, who had called Irving "one of the most dangerous" Holocaust deniers in her 1993 book [Denying the Holocaust: The Growing Assault on Truth and Memory](#).

According to [CNN.com](#)

Irving questioned the use of gas chambers, and claimed the number of Jews who perished was far lower than the 6 million generally accepted. He said most Jews who died at Auschwitz did so from diseases such as typhus, not gas poisoning.

Israel released the previously secret memoirs of Nazi war criminal Adolf Eichmann for use by Lipstadt and Penguin's legal team. The memoirs contained methodical descriptions of the genocide, including timetables of death transports.

Irving faces legal costs of some 2 million pounds (\$3.2 million). CNN reports that Irving does not plan to appeal. The L.A. Times reports that he called the ruling

"perverse" and said that it would be easy to win on appeal. The [Nando Times](#) reports that he will appeal.

According to Marjorie Miller of the *Los Angeles Times*, Lipstadt, a professor of modern Jewish and Holocaust studies at Emory University in Atlanta, Georgia, said "We hoisted him on his own petard. We tracked his footnotes and followed his sources." In Britain, the *accused* in a libel case must prove what he or she said is true. The defense convinced High Court Judge Charles Gray that Irving "has for his own ideological reasons persistently and deliberately misrepresented and manipulated historical evidence."

Most historians estimate that about one million people were gassed to death at Auschwitz-Birkenau. Irving calls Auschwitz a "tourist attraction" that was built after the war.

[thanks to Glen Green and Jon Henrik Gilhuus]

further reading

- [British historian who challenged scope of Holocaust loses libel suit](#) (Nando Times)
- [Wrestling with the past New debates over old horrors: the Holocaust and the writing of history](#) by Jay Tolson (US News)
- [Debating degrees of evil A British libel suit puts Holocaust history on trial](#) by Thomas K. Grose (US News)

April 9, 2000. Today's [LATimes.com](#) has an interesting article about the rising belief in the paranormal and the mystical in China and the work of debunker [Sima Nan](#), for years a relentless critic of [qigong](#), and now a critic of [UFO](#) and [Bigfoot](#) sightings, which are on the rise in China. The Chinese government is obviously concerned about this rise in unscientific thinking and must think there is a causal relationship between it and the decline of interest in communism. Witness their [attack](#) on the [falun gong](#) movement.

Sima blames traditional Chinese thinking for making people susceptible to weird beliefs. "Chinese thinking is different from Western thinking," he said. "Westerners try to get at things very clearly, asking what, why and how much. Chinese are more interested in dealing with things using metaphors or intuitive comparisons." I don't know about Chinese thinking, but not all Western thinking is very clear; "alternative" thinking such as [homeopathy](#) and [astrology](#) seem based on metaphors, intuitions and [sympathetic magic](#) rather than on testable empirical evidence.

Nan is called the Chinese Houdini. He will need to be some kind of great magician to have a significant impact on such a formidable foe.

[thanks to Joe Littrell]

April 7, 2000. Archaeoraptor, proclaimed to be a possible link between dinosaurs and birds, "is really a composite of at least two different animals," according to the [National Geographic Society](#), which made the original announcement regarding the

fossil six months ago.
[thanks to Joe Littrell]

April 6, 2000. The Oklahoma House of Representatives passed a bill requiring science books used in Oklahoma public schools to acknowledge that "human life was created by the one God of the universe," according to [Yahoo!](#) The bill now goes to a committee to decide its fate, according to [The Oklahoman](#).

Such a bill couldn't get passed if the issue were religion texts, but science is a different matter. Just as there are still some sore losers in South Carolina who demand the Confederate flag be flown over the state capital (they consider the attempt to separate from the Union over a century ago to be an essential part of their heritage), there are still some sore losers who don't want to admit that science set itself free from religion centuries ago.

What next? A law making it punishable by up to five years in prison for denying that scientific theories need refer to God? That way we could catch up with Switzerland which has such a law for those who deny the Holocaust, according to the [Nando Times](#).

[thanks to Joe Littrell]

April 6, 2000. Two new types of cancer in sharks have been discovered, according to John C. [Harshbarger](#). Kidney cancer in the dogfish shark and lymphoma blood cancer in the sandbar shark have been added to the list of cancers already known to exist in sharks. This news would not be of interest to most skeptics were it not for the "alternative" quacks who claim that [shark cartilage can cure cancer in humans because sharks don't get cancer](#).

[thanks to Robert Long and Joe Littrell]

April 6, 2000. The Federal Trade Commission (FTC) has settled fraud charges with three Internet companies claiming that an herbal tea called Essiac is effective in curing cancer, diabetes, AIDS and feline leukemia or that cetylmyristoleate (CMO) can cure arthritis and a variety of other ailments.

Under the settlement, the three companies must pay refunds to their customers and are banned from making false claims for any food, drug or supplement and from misrepresenting the results of any research....

Two of the companies also used deceptive "metatags," hidden pieces of text on many Web pages that are often used by Internet search engines in pursuit of certain words or phrases. For example, a person searching for cancer treatment information may be pointed to a page if it includes the phrase "cancer cure" in a metatag.

[Jodie] Bernstein [director of the FTC's Bureau of Consumer Protection] said consumers should beware panaceas and be particularly wary of terms like "scientific breakthrough," "miraculous cure," "exclusive product," "secret ingredient" or "ancient remedy."
[\[CNN.com\]](#)

The companies involved are:

1. Natural Heritage Enterprises of Crestone, Colorado ([Michael D. Miller](#), president);
2. CMO Distribution Centers of America of Sarasota, Florida ([Kalon Samulonis](#), president); and
3. EHP Products of Ashland, Kentucky ([Elaine Parrish](#), president).

[thanks to Robert Long]

April 2, 2000. Farmers in the Philippines, unable to control a potato pest with chemicals, have turned to an ancient rite to save their crops: [pig burning](#) to appease the gods and stop deaths following pestilence or disease (*pakde*). Part of the ancient ritual involves the *mambunong* (tribal priests) slaughtering a black pig to study its liver for omens.

April 1, 2000. [The National Post](#) reports that Sister Jeanne O'Laughlin, a Catholic nun, believes that Elian Gonzales will be sacrificed in a witchcraft ceremony by Fidel Castro if the boy is returned to his father in Cuba. (Last November the boy's mother and her lover drowned along with eight others but the boy was rescued and has been held captive by the Cuban community in Miami ever since.) Any hope of reasoning with Elian's Miami captors will be futile, as he is now been mythologized into the new Moses who will set his people free. Many believe he has mystical powers and that the Virgin Mary appears regularly in his bedroom mirror.

[thanks to Joe Littrell]

April 1, 2000. Today, [Art Bell](#) retired [again](#). The details announced in his retirement message are too horrible to think this is an April Fool's day joke.

March 29, 2000. If you were psychic, you'd tell anyone who asked what numbers were going to come up in the next Lotto drawing, wouldn't you? Even though you are only charging \$2.50 a minute for a phone call, you'd tell the caller what numbers are going to win the jackpot of, say, \$80,000,000; wouldn't you? Apparently that's what some folks in Florida think, according to the [Miami Herald](#).

March 29, 2000. Since Muslims are allowed by law to use loudspeakers for three minutes each Friday to call people to prayer in Oslo, Norway, atheists have been given the ok to use loudspeakers to announce "God does not exist." It's a matter of fairness, according to [CNN.com](#).

[thanks to Jon Henrik Gilhuus]

March 29, 2000. A lawyer for the Japanese cult which released poison gas in a Tokyo subway in 1995 has been found guilty of attempting to murder a lawyer for the victims of the cult attack, according to the [Anchorage Daily News](#).

March 25, 2000. A [Urantia](#) sect called the Amadonians and led by Steve Arden, also known as Amadon Amadon, who was bankrupted by two female employees who won a sexual harassment lawsuit against him, is setting up a new shop in [Oregon](#). This odd group combines the spiritual with spirits: they help restaurants, bars and resorts apply for liquor licenses.

March 22, 2000. [DOnline](#) (the D is for Dallas as in Texas) reporter George Roffman writes that

D Magazine went to five area stores—Tom Thumb, Whole Foods, Drug Emporium, GNC, and Fresh Start—to compare the most popular supplements available. At each store we bought three identical bottles of [DHEA](#), ginger, ginkgo biloba, ginseng, melatonin, saw palmetto, St. John's wort, and milk thistle.

When tested, they found that half of the bottles did not meet their label claims and five of the bottles had no active ingredients at all. Solgar performed the worst of all the brands tested. The article points out that there is no industry standard or government regulation which would insure the customer of the accuracy of the labeling claims, whether those claims refer to ingredients or alleged properties such as "increases mental prowess."

[thanks to Joe Littrell]

March 22, 2000. Finally, alternative dentistry has arrived, according to [The Arizona Republic](#). Dr. Michael Margolis of Mesa, Arizona, doesn't do root canals because, he believes, they cause problems in other parts of the body. He just pulls the tooth. He also uses a "healing light" which shoots out a red laser beam at a frequency that, he claims, kills bacteria. "There is no doubt it works," he says. He also thinks that fluoridation of water is an evil plot of the government and the American Dental Association. We are being poisoned because of money, politics and power. In Mesa, where the issue of fluoridation of the water supply was put to a vote, Margolis is not alone. There are 16,478 others who don't want the stuff in their water.

[thanks to Joe Littrell]

March 21, 2000. Earlier in the week, [PETCO announced](#) that it would be opening a new store in New Jersey with the help of Norma Caesar who is a pet therapist and claims to be an animal psychic. She is being billed as "an expert on the psychic nature of pets" who "is able to communicate with all animals." Just as [James Van Praagh](#) acts as an intermediary between any human and any dead person, so Norma Caesar acts as an intermediary between any human and any animal. Both claim to get messages, one from the dead and the other from living animals, that seem beyond the reach of the rest of us ordinary mortals.



In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

9

February 5, 2000. The head of the [Kabalarians](#) has lost his appeal and has been sent back to jail to finish his five-year sentence for the [rape of two teens and eleven other charges of sexual abuse](#) of five other teenage girls, according to the *Vancouver Sun*.

The court ordered a new trial on two counts involving two other women. Ivon Shearing was originally charged in 1997 with 20 offences involving 11 women in his [500-member cult](#) who complained they were sexually abused between 1965 and 1990. Shearing allegedly preached the need for sexual control to his minions.

February 4, 2000. New Zealand researchers claim to have an explanation for ball lightning: it's "burning dust" or "fluffy silicon" freed from minerals in the soil. Read all about it in [FutureFrame](#).

February 4, 2000. Homeopathy for horses: is it "veterinary voodoo"? Not according to the Alternative Veterinary Medicine Centre in Oxfordshire, England. So-called "alternative" medicine for pets and farm animals is apparently widespread and growing in the land of *All Creatures Great and Small*. (I know; James Harriot worked in the *Yorkshire* dales and that wasn't his real name.) Read all about it in the [Observer](#).

[thanks to Tim Boettcher]

February 3, 2000. Alfredo Barrago, an Italian magician, is busy demonstrating how to fake tears of blood on statues, according to [The Sunday Times](#). Who is responsible for this weeping statue hysteria? The Vatican should shoulder some of the responsibility. The Sunday Times reports that Since 1830, the Vatican has approved 15 "authentic apparitions" by the Virgin Mary one "authenticated weeping Madonna," a statue of the Virgin Mary at Siracusa in Sicily which allegedly "wept blood" in 1954.

[thanks to Jon Henrik Gilhuus]

February 1, 2000. The [Denver Post](#) reports that [Colorado College](#) is using Lego-building to help "identify initiative, leadership and an ability to work in groups" in lieu of the SAT and ACT test "in an effort to attract minority and disadvantaged students."

[thanks to Antonio Ramirez]

January 31, 2000. [The New York Times](#) reports on the growing acceptance of "alternative" medicine. It's claimed that some \$27.2 billion was spent by Americans in 1998 on such therapies as [chiropractic](#), [traditional Chinese medicine](#), [homeopathy](#), [naturopathy](#) and [massage therapy](#). The National Center for Complementary and

Alternative Medicine now has a budget of \$68 million a year, thanks to a Congress which knows which way the wind blows. It even has a "respected virologist," Dr. Stephen E. Strauss, as its director.

A 1998 survey of more than 2,000 adults was conducted by Dr. David Eisenberg, director of the Center for Alternative Medicine Research and Education at Beth Israel Deaconess Medical Center in Boston. Eisenberg "estimated that 46 percent of the American population had visited a practitioner of alternative health care in 1997, up from 36 percent in 1990."

Experiments are now being done with placebo [acupuncture](#), ginkgo biloba, [St. John's wort](#), [shark cartilage](#) and [qi gong](#).

The article notes that in 1994 Congress passed a law that "permits manufacturers to make claims about health benefits for herbal medicines whose safety and effectiveness have not been proved by the usual standards applied to prescription drugs." The need for testing the wild and unsubstantiated claims of alternatives became greater than ever.

There are a couple of sane voices in the wilderness, however. Dr. Victor Herbert of the Mount Sinai School of Medicine calls the center on alternative medicine "a worthless waste of money" that was "set up to promote fraud." And Dr. Marcia Angell, editor of *The New England Journal of Medicine*, said "the center had so far failed to publish any significant articles in scientific journals." "The proof is in the pudding," Dr. Angell said. "Just show me the papers."

Yes, the article does mention the [placebo effect](#).

January 28, 2000. [CNN.Com](#) reports that New York City is trying to get some people off its welfare rolls by giving them job training as "psychics." In case you're wondering, psychics make about \$10/hour and must have "a caring and compassionate personality" and the ability "to read, write and speak English." [thanks to John Collin]

Only hours after this story broke, NYC announced it was halting the psychic trainee program, according to [ABC.com](#). [thanks to Jon Henrik Gilhuus]

January 24, 2000. The [Independent News \(UK\)](#) reports that there are homosexuals in Scotland and some of them are priests. They also report that at least one Cardinal is not happy about this state of affairs.

January 23, 2000. [NYPost.Com](#) reports that "complementary" and "alternative" medicine is on the rise in the Big Apple, right down to using feng shui to decorate the offices. In another article, [the Post warns](#) that herbs can be hazardous to your health.

Meanwhile, [the \(London\) Sunday Times](#) reports that churchmen are outraged at a proposal to dump AD (as in Anno Domini, year of the Lord) for CE (the common era). Such a change would avoid the inconvenience of trying to find a new starting

date for the calendar, and while keeping dates in harmony with the Gregorian calendar the CE designation would avoid associating itself with the notion that the turning point in all history was the birth of Jesus Christ.

reader comment

26 Jan 2000

The AD vs. CE debate reminds me of what James Randi wrote about a talk he gave to a religious anti-cult group. Coming from a skeptical view point the talk he gave offended some of the members of the religious group, so his keynote address was not mentioned in the newsletter following the event. Randi remarked that by ignoring his participation the group was attempting to change the truth, just like the cults did.

Like it or not the reason the Gregorian calendar created the split in dates was because of Christ. Why does CE divide the dates at the same time? Only because that's what the Gregorian calendar does, so really it's based on the same thing. The year one was created because our society has been influenced by a belief in Christ (whether a true belief or not). To say change our dating designation to CE denies that a belief in Christ has influenced our society. Sounds like revisionist history to me.

Tim Boettcher

reply: I don't think the AD/BC dating system means Christ "influenced" western civilization, but that all historical time should be measured in terms of those who lived before salvation was possible and those who lived after the Savior arrived. Thus, those who do not accept Jesus Christ as their true Lord and Savior must nevertheless pay homage to this notion whenever they date an event as BC or AD. Using CE and BCE avoids the tediousness of having two dating systems while providing a "neutral" way of identifying dates, i.e., neutral with respect to the belief in Jesus Christ as the Lord and Savior of all mankind.

January 22, 2000. Real estate agents in London aren't too happy with the increasing popularity of [feng shui](#) experts being consulted by house seekers, according to the [Sunday Times](#).

January 21, 2000. [CNN.Com](#) reports that at least one pharmaceutical firm is treating herbal medicines like traditional ones. "CVS Corp. of Woonsocket is asking customers to tell their pharmacists what herbal supplements they use. The information is entered into a computerized program that cross-checks them for adverse combinations."

Probably of more importance is [another CNN report](#) that "version 5.0 of America

Online's Internet software -- which a national technology magazine this week suggested was "the upgrade of death" -- sometimes cripples existing Internet accounts with rival companies and prevents current AOL users from signing for service with competitors."

January 20, 2000. According to the [Nando Times](#), The Intercollegiate Studies Institute of Wilmington, Del., a conservative academic think tank, has named Margaret Mead's 1928 treatise, *Coming of Age in Samoa*, the worst nonfiction book of the past 100 years.

January 19, 2000. [The Washington Times](#) reports on how to cure skepticism: be declared the reincarnated spirit of a king and have a few thousand people worship you.

January 18, 2000. Britain is repealing part of the 1780 Sunday Observance Act and will now allow dancing on Sunday nights, according to the [Sunday Times](#). What next? the king to be coronated by a gay rights minister? [Not likely](#).

January 18, 2000. Any nut in a storm. That seems to be the motto of the National Center for Complementary and Alternative Medicine. They've committed over \$1.4 million over five years to study the crackpot cancer "cure" of Nicholas J. Gonzalez, who uses a variation on the [Max Gerson treatment](#) of coffee enemas and vitamins. Read all about it in the [WashingtonPost.com](#). The fact that Gonzalez has already been convicted of incompetence and malpractice does not seem to bother those spending other people's money on this bogus research.

January 12, 2000. The latest print issue (February 2000) of [Brill's Content](#) has a new look and a new motto: **Skepticism is a Virtue**. In a two-page promo for itself, the magazine lauds the many virtues of skepticism.

January 12, 2000. The UK [Sunday Times](#) reports on the Catholic Church's continuation of the Inquisition, now called the Congregation for the Doctrine of the Faith (CDF). A nun has quit her religious order rather than submit to the CDF's demand that she publicly recant her views on birth control and women priests. This should improve the Vatican's continuing efforts to ward off criticism that it is archaic, hopelessly outdated, and on the cutting edge of repression and invidious discrimination.

In an unrelated story, it is also [reported](#) that congregations in English churches are losing 2,000 members a week.

In another unrelated story it was [reported](#) that there are more divorces among America's born-again Christians than among atheists. Even Mormons (24%) have a higher divorce rate than atheists (21%). (Though, if one accounts for the margin of error--not given in the report--I'm sure that there is no significant difference between the divorce rate for Mormons and for atheists.)

[thanks to Jon Henrik Gilhuus]

January 12, 2000. Marjorie Miller of the *Los Angeles Times* reports that [David](#)

[Irving](#), an English historian and author of books on Hitler and Goebbels, and [hero to Holocaust Denial advocates and anti-Semites everywhere](#), is suing historian Deborah Lipstadt for libel. Professor Lipstadt of Emory University calls Irving "one of the most dangerous" Holocaust deniers in her 1993 book [Denying the Holocaust: The Growing Assault on Truth and Memory](#) (Free Press). She has also claimed that Irving twists historical evidence to fit his own political views, which have been described as akin to Nazism.

Though it has been nearly seven years since Lipstadt's book was first published, Irving has had to wait to sue her because the book has only recently been published in the United Kingdom, where libel laws are often successfully used to silence critics. The burden of proof is on the defendant and public figures are not treated any differently than private citizens. In short, Irving figures he has a chance to win in England, whereas if he sued in the United States, he would probably end up like [Uri Geller did when he sued critic James Randi for libel](#).

The trial is likely to end up being a public debate over Holocaust denial. In his opening remarks, Lipstadt's attorney said that Irving is "not an historian at all, but a falsifier of history" and "a liar." Irving read a 55-page statement listing his important contributions to understanding the Holocaust.

[Irving denies that he is a Holocaust denier.](#)

[But he admits that he was wrong about some things.](#)

January 9, 2000. "Don't Worry About Vaccinations" is the title of a *Parade* magazine article by Dr. Isidore Rosenfeld. The author lists the main objections to vaccinations and responds to each of them. The main concerns are safety, effectiveness and necessity. Weighing the risks of being vaccinated versus not being vaccinated, Dr. Rosenfeld and most practicing pediatricians recommend 21 vaccinations for children by the time they are in the first grade. There are risks with vaccination, but there are also risks with not being vaccinated and the latter far outweigh the former, according to the American Academy of Pediatrics.

January 5, 2000. According to the [Washingpost.com](#), people are angry at Ed Yourdon, the MIT graduate and computer consultant who wrote *Time Bomb 2000*. The blurb on the back of the book says: "Saturday, January 1, 2000. Suddenly, nothing works. Not your phones, not the cash machine, not even your fancy new VCR." Some 250,000 copies of the book were sold over the past two years.
[thanks to Jon Henrik Gilhuus]

January 3, 2000. China has a state-sponsored bimonthly magazine devoted to UFO research which has a circulation of some 400,000, according to [ABCNews.com](#). China also has a UFO Research Association with a membership of some 50,000. According to the traditional Chinese lunar calendar, we are entering the Year of the Dragon, a time of tumult. One researcher is even investigating a report of an alien abduction in Beijing last month. The same researcher believes that "aliens may find China attractive for the same reason foreign investors and tourists do." They may, indeed.

More on China and UFOs from the [Christian Science Monitor](#).

[thanks to Jon Henrik Gilhuus]

December 27, 1999. According to [BBC news](#), a survey of leading religious leaders in England reveals that only 3 of 103 believe in the Biblical version of creation, only 13 believe Adam and Eve existed, and 25% reject the Virgin Birth story.

In an unrelated story, The [The Sunday Times](#) reports that the Archbishop of York and other Church of England bigwigs are calling for some rethinking on the union of church and state and for allowing British monarch to marry Roman Catholics.

[thanks to Jon Henrik Gilhuus]

December 27, 1999. The end of the world may not occur on January 1, 2000, according to the [Washington Post](#). This should be a great disappointment to the many prophets who, by their constant predictions, gnashing of teeth and finger pointing, seem to wish life would end sooner rather than later. It may seem sick, but the end-of-the-world prophets seem to be motivated by *hope* rather than *fear*. Bad luck to them all! And a Happy New Year!

[thanks to Jon Henrik Gilhuus]

December 23, 1999. According to [CNN.com](#), a Denver judge has ruled that an unattended crèche in the Denver City and County Building is ok but an unattended sign is not. I wonder if the content of the sign had anything to do with her ruling. It said "The 'Christ Child' is a Religious Myth. The City of Denver Should Not Promote Religion" and "There are no gods, no devils, no angels, no heaven or hell. There is only our natural world." The sign was the gift of Julie Wells, a member of the Freedom From Religion Foundation.

[thanks to Jon Henrik Gilhuus]

December 21, 1999. [Joe Firmage](#) has donated \$1 million to the Carl Sagan Foundation (CSF), a not-for-profit organization founded by Sagan's wife, Ann Druyan. Firmage calls Sagan "one of the greatest visionaries who ever lived." In a recent e-mailing, Firmage writes that "CSF is presently raising capital for a pioneering effort to transform the healing environment within a new children's hospital in the Bronx. Images of Cosmos and new learning tools from science have been designed into its walls, floors, ceilings, and systems, turning the sterile and frightening landscape of the hospital into a place of discovery and inspiration."

December 15, 1999. [Deaths, Deceptions and Dubious Claims Haunt Chiropractors' Bid for Academic Acceptance](#) is the heading of CANOES' [Spin Doctors](#), a Canadian Internet Network. The article by Paul Benedetti and Wayne MacPhail is a detailed critique of chiropractic and recent criticisms of it in Canada. They give special attention to the attempt of the Canadian Memorial Chiropractic College (CMCC) to affiliate with York University, a merger that now appears to be less imminent after some recent bad publicity, including a study which claims that chiropractic manipulation may cause as many as 150 strokes a year in Canada.

December 15, 1999. An interesting [lawsuit](#) against Scientology has been filed for the

estate of [Lisa McPherson](#), who was 36, when she died Dec. 5, 1995, under circumstances that indicate, at the very least, bad judgment regarding a mentally ill person, or perhaps even criminal negligence on the part of [several scientologists](#). The lawsuit gives a history of L. Ron Hubbard's organization. Among its claims: "Scientology is both immoral and socially obnoxious... It is corrupt, sinister and dangerous. It is corrupt because it is based on lies and deceit, and has as its real objective money and power...." And these are the more positive remarks....

further reading:

- [Are the mysterious deaths of Lisa Mcpherson and L. Ron Hubbard connected?](#)
- [INSIDE THE CHURCH OF SCIENTOLOGY; Powerful church targets fortunes, souls of recruits](#) by Joseph Mallia, Boston Herald

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reader comments:

homeopathy

7 May 2000

Hi!, I'm an Englishman, married to an Indian and currently staying most of my time in India. As you would expect I am in the midst of all kinds of weird beliefs but none as great as Homeopathy although Astrology runs it close as does Ayurveda' Truly the Land of the Gullible. I want to take a little mild exception to the article on Homeopathy. I quote

If people want to buy and drink lemonade which some aquatic entrepreneur has called a tonic that can cure warts, boils and cancer, let them. As long as their products aren't dangerous in themselves, and the government isn't using tax dollars to subsidize the fiasco, then let the buyer beware and let the lawyers be quiet.

I have seen a couple of instances during the time I have been here where Homeopathy has killed. Of course I cannot name names. However I point out that where people are gullible enough to believe that Homeopathy can cure them there must be thousands of undocumented cases where people have died because they were not referred to scientific doctors in time.

The products are dangerous in themselves in that they frequently postpone qualified scientific intervention until the condition becomes chronic or terminal.

**Roy Eagleton
Chandigarh (U.T.) INDIA.**

20 Sep 2000

Although it is amply clear that homeopathy is bogus, please be aware that, biologically speaking, one molecule per million can be a very effective quantity of a substance. Many biological molecules are present and very active in nanomolar (1/billion) or even picomolar quantity. Drinking an ounce of 1 micromolar nerve gas or plutonium nitrate would make for a very bad day.

What is more important to note is that many homeopathic remedies have zero molecules per dose. It seems essential is that the concentration of the remedy's main ingredient may be much much higher in the ambient air or water.

I use Ca ion concentration as an admittedly slightly off-topic example. Intracellular fluids contain very few free calcium ions; specifically, about one one-thousandth the concentration of Ca in the highest purity water reasonably attainable in a laboratory. Pure water (a practical impossibility) would be made unusable for many studies simply being left unsealed for, say, an hour in a completely still, completely sterile room.

The point being that your one to one bazillion dilution of Goldenrod pollen extract (or whatever) used for hay fever would be fatally adulterated (undiluted?, strengthened?) in the moment you cracked the seal on the bottle. (Especially in fall, when you would be using it, in the South.)

Given the opportunity to discuss homeopathy, I usually use terms such as "one molecule in an Olympic swimming pool." Although folksy, it is technically more accurate.

Thank you for a wonderful resource.

Greg Griffeth
LSU SVM Class of 2004

reply: Thank you for the comments and information.

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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Readers are encouraged to send *Mass Media Bunk* material to:

btcarrol@skepdic.com

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

11

March 16, 2000. "Homeopathy - It's not wizardry; in fact, it's based on the same principle as vaccination" is the title of an article by Debra Ollivier for Salon.com. Homeopathy is *not* based on the same principle as vaccination. Homeopathy is based on a metaphysical belief that *like cures like*; vaccination is based on empirical facts regarding bacteria, viruses and the immune system. This is just one of several errors Ollivier makes in her panegyric to a pseudoscience.

According to Ollivier, Dana Ullman, an advisory board member of alternative-medicine institutes at Harvard's and Columbia's schools of medicine, is a leading spokesman for homeopathy. Ullman uses a musical metaphor to describe the homeopathic law of "similars":

If one piano is at one end of a room and if one strikes the C key, the C notes in another piano in the same room will reverberate. This experiment works because each key is hypersensitive to vibrations in its own key. This is called 'resonance.'

It is also called a false analogy. The human body shares almost nothing in common with a piano string, and reverberation is unlike anything in the body's natural healing system. The analogy may make sense to Ullman because he buys into the notion that homeopathy is a type of "energy medicine." Disease is caused by blockage of energy and health is restored when the energy flows freely. Ollivier claims that according to Andrew Weil (whose bunk we have noted before), "energy medicine" like homeopathy is one of the major medical developments of the 21st century.

Ullman's finest false analogy, however, is when he compares the work of infinitesimal amounts, sometimes equalling zero, of homeopathic substances, to tiny atoms containing vast amounts of energy.

There are many phenomena in nature in which extremely small doses of something can create powerful, even very powerful, effects....One certainly cannot say that the atomic bomb is a placebo just because some extremely small atoms bump into each other.

From this he concludes that we shouldn't dismiss the "successes" of homeopathy to the placebo effect.

Ollivier's article does provide some useful information, however. For example, did you know that Oscilloccocinum is the biggest selling homeopathic flu "medicine" in the U.S. and France. The stuff is made from the heart and liver of Barbary ducks. (I have no idea how the flu and these duck organs are similar. We may have to consult Edgar Cayce on that one.) And did you know that there are 700 homeopathic

veterinarians in France and 17 student chapters of the American Holistic Veterinary Medical Association among the 27 U.S. veterinary schools? Neither did I.

The article does have one skeptical paragraph (about 4% of the overall article). In the middle of her piece, Ollivier quotes Dr. Michel Tramos, a Paris general practitioner, who claims homeopathy is psychobabble, unscientific and its successes are due to the placebo effect. Ollivier made no effort to find support for Dr. Tramos's claims, as she was obviously too busy resonating to the vibes of Ullman's moronic metaphors. [thanks to Joe Littrell]

Another piece of bunk on homeopathy appears in [Wired.com](#): "Homeopathy -- Dilute And Heal" by Andy Patrizio. The focus of Patrizio's article is a book by Dr. Bill Gray called *Homeopathy: Science or Myth*. [Gray](#) claims to have earned an M.D. from Stanford Medical School in 1970 and to have been a homeopath for 27 years and he has rubbed elbows with several Nobel Prize winners. Dr. Gray may be a bit confused, however, since he claims that George Vithoulkas of Athens, Greece, who trained Gray in homeopathy, was a "1996 recipient of Nobel Prize for Alternative Medicine in Stockholm, Sweden." There is no Nobel Prize for Alternative Medicine. (Vithoulkas did receive some kind of recognition from the Right Livelihood Award Committee and apparently he did [address the Swedish parliament](#) but as far as I can tell he never received a Nobel prize for anything.)

Vithoulkas has no medical training but his claims go way beyond advocating homeopathy. He claims that western medicine not only does not cure diseases, but is the *cause* of most diseases.

Multiple sclerosis, a disease that eventually leaves its victims totally paralysed, is one which thousands of people are suffering from in the western world. Yet it is entirely unknown to Africans, Asians or South Americans, who have not had the 'benefit' of the excellence of western medicine. Amyotrophic lateral sclerosis, a terrible disorder of the neuromuscular systems, is also unknown to all these people. Myopathy and muscular dystrophy is the same, known only to westerners. Epilepsy, which is rampant in the western world, is seldom encountered in these countries. Anxiety neurosis, compulsive neurosis, and in general mental disorders of a severe nature from which millions of patients are suffering in the western world, are almost unknown in these groups that have not had the 'benefit' of modern medicine and vaccinations. Chorea and a host of other nervous system disorders are also unknown to them.

The model suggests that all these chronic diseases, including hay fever, asthma, cancer and AIDS, are the result of wrong intervention upon the organisms by conventional medicine. It claims that the immune systems of the western population, through strong chemical drugs and repeated vaccinations, have broken down and finally admitted the diseases deeper and deeper into the human organism, to the central and peripheral nervous system.

In short, this model claims that conventional medicine, instead of curing diseases, is actually the cause of the degeneration of the human race.

He even claims that he predicted the AIDS epidemic.

I had already, in 1970, predicted the appearance of AIDS, saying to a group of medical doctors in Athens that if conventional medicine continued to use antibiotics the way it did, there would come a time when the immune system would break down and new incurable diseases would emerge. It was an unfortunate but precise and timely prediction of the appearance of AIDS.

I don't suppose that he's noticed that [measles is rampant in Afghanistan](#) and AIDS is rampant in Africa where people die and unnecessarily suffer every day because of the lack of vaccination against preventable diseases such as polio and measles. Withoukhas has predicted that if western medicine doesn't change its ways the result will be that "most of the population on earth will be mentally ill individuals."

Withoukhas is only one of Gray's heroes. Another is Shui Yin Lo. I wonder if this is the same Lo who has been mentioned in these pages before in connection with [Laundry Balls](#). Has Lo moved on from the worthless laundry balls scam to an outfit called [American Technologies Group, Inc.](#) (ATG)? ATG sells several items for the automobile, including something called **The Force Formula 1 & 2** which allegedly "super charges" air coming into your engine. You stick **The Force Formula 1 and 2** in your air cleaner compartment and it "modifies the air taken into your engine, enhancing combustion and begins to purge internal moving engine components of the carbon buildup that impedes performance and damages parts.

According to Wired.com's [Patrizio](#), while working on a way to clean car engines for ATG, Lo claims to have found that "water molecules, which are random in their normal state, begin to form a cluster when a substance is added to water and the water is vigorously shaken -- the exact process homeopaths use to create their medicine."

Lo said every substance exerts its own unique influence on the water, so each cluster shape and configuration is unique to the substance added. With each dilution and shaking, the clusters grow bigger and stronger. This water, which homeopaths call "potentized," is considered "structured water," because the water molecules have taken on a shape influenced by the original substance.

The clusters start to assume a form that mimics the structure of the original substance itself. So even though the chemical can no longer be detected, its "image" is there, taken on by the water molecules.

There is an interesting site on the Internet which lists selected [classic papers in chemistry](#). None of the papers mentions Lo or "structured water." One wonders why Lo hasn't won a Nobel Prize for this discovery. Why hasn't he shared his discovery with the rest of the world? Why no publications? Why toil in relative obscurity for a company that sells car washes and fuel enhancers? Shouldn't Lo's paper on

"structured water" be a classic by now?

Patrizio, rather than ask to see the paper on structured water with the data proving Lo's claims, notes that the American Medical Association declined to comment on Gray's book. Patrizio does note, however, that the AMA "stated in its charter it was formed 'to stamp out the scourge of homeopathy'." Patrizio also quotes another M.D., Richard Sarnat, who has turned to ["alternative" medicine](#) and who claims that the theory of structured water is now proven. It isn't proven, but it should be a simple matter to prove it. There are dozens of homeopathic products on the market that are nothing more than vials of water. It should be a simple matter to examine the water in the vials and determine if the water has a different structure in the different vials. [thanks to David Ready]

reader comments:

19 Mar 2000

In your March 16th update to Mass Media Bunk, you mentioned George Vithoulkas had "forecasted" the AIDS epidemic. Other than it not being an epidemic of any proportion. Antibiotics stop bacteria not viruses. Basically meaning, the introduction of widespread use of antibiotics has had absolutely no affect on any virus. Whether it be the common cold or AIDS. If this dumb-ass had the schooling of an average teen he would have known that AIDS is caused by a virus (HIV) and not bacteria. Therefore immune to any antibiotic that has been made and will ever be made.

Here is a link that does a decent job of explaining what an antibiotic is for you people "like" George Vithoulkas.

<http://falcon.cc.ukans.edu/~jbrown/antibiotic.html>

**George Sopko
GSSL**

reply: In fairness to Vithoulkas, he does not claim or imply that antibiotics affect viruses. Immunizations are given to protect against viruses, such as the poliovirus which causes poliomyelitis. Another example would be being vaccinated with cowpox virus to immunize one against smallpox.

It is especially strange that he opposes vaccinations such as that for smallpox since many homeopaths think such treatments are examples of like curing like, and hence give validity to their pseudoscientific notions.

It is probably safe to say that Vithoulkas opposes the use of antibiotics, but he does not seem to confuse antibiotics with vaccinations against viruses.

February 18, 2000. Bob Ballard, he who found the sunken Titanic, knows how to get publicity. Just claim you're looking for [Noah's Ark](#) and the investors may follow

such journalistic luminaries as the [NYPost.com](http://www.nypost.com).

reader comments:

I recently became aware of your web site, and after reviewing for a short time, found a great deal of information that I agree with.

However, I take issue with your attack on Dr. Robert Ballard

reply: Attack?

I feel that your attack should be leveled at the NY Post editorial staff, for their complete and total misrepresentation of Dr. Ballard's work in their headline.

Dr. Ballard's group has not been looking for the Ark, per se. They have been looking for proof of a cataclysmic flood some 7,000 years ago, a flood that would have been the factual basis for the myths (in many cultures, not just Judeo-Christian ones) of a world-wide flood.

Furthermore, I doubt Dr. Ballard needs either publicity or investors, certainly not investors that would be attracted by a newspaper article.

Greg Stitz

reply: Get a grip, Greg. You're taking things much too seriously. You must not have read much of my stuff if you think this little ditty was an attack.

January 31, 2000. Our Lady of Guadalupe has left the tree bark in [Watsonville](http://www.watsonville.com) and has landed in an ice-cream spill on the cement floor of an apartment complex in Houston, or so says the [Associated Press](http://www.associatedpress.com).

[thanks to Tim Boettcher]

January 30, 2000. The *Kansas City Star* is spreading fear by making claims about an AIDS epidemic among Catholic priests in the U.S. The *Star* is basing its baseless claims on a few anecdotes and a very, very unscientific survey which they did themselves. There are some 50,000 priests in the U.S. The *Star* made no effort to do a random sampling and get a good cross-section of that population for its survey. Instead, the *Star* bases its claims on the 801 responses it got to a survey about priests and their sexual behaviors that had been mailed to 3,000 priests.

How serious the AIDS problem is among priests will not be discovered by studying the *Kansas City Star's* report.

You can read about it in the [Nando Times](http://www.nandotimes.com). (The *Sacramento Bee* headlined the story with **AIDS ravaging U.S. priests, report claims**)

further reading

- [He Who Explaineth Too Much Is Lost - Kansas City Star series](#)

[gets dragged down by weight of too many questions by Steve Yahn](#)

- ['Flaws in survey undermine expose' on AIDS among priests by David Murray and S. Robert Lichter](#)
- [Bad News on Priests and AIDS - Flaws in a newspaper's survey undermine an exposé on AIDS among Catholic priests](#)
- [AIDS/Priests: A Rebuttal to the Kansas City Star](#)
- [POLLING EXPERTS WEIGH IN ON STAR DISPUTE](#)

January 19, 2000. The [WashingtonPost.com](#) had nothing on feng shui today, I guess, so they wasted a lot of space with a story about a pet psychic. Speaking of [feng shui](#)....

January 18, 2000. [CNN.com](#) reprints a story from Catherine Rauch of [WebMD](#) that gives credence to the foolishness of William Harris, Ph.D. who claims: "Prayer *may be* an effective adjunct to standard medical care." (Note the weasel words.) His evidence? Harris and his team had people pray for the speedy recovery of some 500 cardiac patients who were compared to 500 who didn't have a special prayer group. The results? "In Harris' study, the length of the hospital stay and the time spent in the cardiac unit were no different for the two groups." So, how did he conclude that prayer might be "an effective adjunct to standard medical care"? He nosed around with the data until he found a list of factors that made it appear that the group receiving prayers fared 11 percent better than the group that didn't. This isn't even junk science; it's joke science.

My comments on this study when it was first published may be found at [Mass Media Bunk 10](#).

update (Aug. 11, 2001): According to [CSICOP](#): "On Monday, August 13, ABC will be airing segments featuring the intercessory prayer research of Dr. William Harris, professor and director of the Metabolism and Vascular Laboratory at St. Luke's Hospital in Kansas City, Missouri. The segments will appear on "Good Morning America" between 7 a.m. and 9 a.m., and on "20/20 Downtown" at 8pm EST."

[Thanks to Jon Henrik Gilhuus and Barry Karr]

further reading

- ["Is there scientific evidence that intercessory prayer speeds medical recovery?"](#) A Debate Transcript of the March 13th, 2001, Debate Between William Harris, PhD, Saint Luke's Hospital, Kansas City, MO, and Irwin Tesson, PhD, Purdue University, West Lafayette, IN
- [God in the CCU? A critique of the San Francisco hospital study on intercessory prayer and healing](#) Gary P. Posner, M.D.
- [Studies on Prayer and Healing Flawed](#)
- [Comments on Elizabeth Targ's study on "distance healing"](#)
- [Prayer and healing: show me the money!](#)
- [Mass Media Bunk 13](#) - the University of Maryland

- [Mass Media Funk 14](#) - "religious" people live longer!

January 14, 2000. On the front page of the *Sacramento Bee* today is a news article about a touring reliquary that is coming to town tomorrow. The bones of a nineteenth century French person, who died at the age of 24 from tuberculosis, are on tour in the United States. Over one million people have come to see these bones and chunks of hair dug up from her grave about a century ago. That doesn't make them quite as popular as the Beatles, but 75,000 showed up in Detroit to view the relics. That's up there with any rock band. (At least the *Bee* must think so. They had a full page story on the 15th and another story on the 16th, each with color photos, on the traveling religious freak show.)

The bones are traveling across the country in the "Therese Mobile" (named after the woman whose bones these used to be) driven by a priest who does interviews on the road via his cellular phone. The reliquary, a gilded jacaranda casket insured against fire and theft, is guarded by colorfully attired Knights of Columbus when it arrives at the various viewing stations on the itinerary. Commemorative T-shirts of the tour are available.

Who was this Therese? She was a girl of fifteen when she entered the Carmelite nunnery. The story is that her prioress ordered her to keep a spiritual journal while she was dying. The journal became a hit, numerous [miracles](#) were said to have occurred because of Sister Theresa's intercession, and in 1925 she was canonized by the Roman Catholic Church and has been known as *Saint Therese* ever since.

I wonder what this prayerful recluse would think of a taking her bones on tour like some rock star in a material world to juice up the faithful?

January 5, 2000. Fifty years ago, China banned [feng shui](#) as a pernicious superstition and many [geomancers](#) headed for Hong Kong where there are now some 10,000 practitioners catering to the 90% of the population who are believers, according to [CNN.com](#).

David Groves of the Los Angeles Times Syndicate, who wrote the CNN piece, gushed over a geomancer he interviewed: he was told he had a bad back, a bad temper, and bad nights. One out of three isn't bad: Groves has bad nights. The cure? He was told to place two jade statuettes and a brass icon in the corners of his room and to place a standing light fixture with nine bulbs in the center of his living room. He doesn't tell us whether he took the cure or not.

He was also told that his kitchen faucet must point away from the stove in order to control his temper by not allowing fire and water to meet. Groves doesn't mention whether he has a bad temper or not, nor does he show any skepticism about the [sympathetic magic](#) behind the advice.

[thanks to Jon Henrik Gilhuus]

December 27, 1999. [The Washington Post](#) is now serving up astrology big time ... and [CNN.com](#) is praising the rise of alternative medicine: They quote John Weeks, healthcare consultant and publisher of the *Integrator for the Business of Alternative Medicine*, as saying that "What was...considered quackery or fraud [in 1989]... is

now being viewed as a normal part of doing business among insurers and others in the delivery side of medicine." This is progress?

[thanks to Jon Henrik Gilhuus]

December 24, 1999. Ten people died and 753 survived the sinking of a ferry in the Philippines. According to [CNN.com](http://www.cnn.com), Philippine Defense Secretary Orlando Mercado said that the ten dead were "a Christmas gift from above" since they were all evil people anyway, especially the two children, who probably would have grown up to be murderers, drug dealers, or televangelists. Those who survived were described as deserving a brush with death to remind them who is in charge. "None of the survivors deserved to live," said a passerby. "They obviously didn't pray hard enough."

Actually, the survivors were claiming that God saved them because they are special and Mercado claimed the survivors were given a Christmas gift from God.

Such rationalizations are wondrous, indeed: searching for meaning in the meaningless and praising God when we should be blaming some of our own species. Such self-deception may have psychological value, but it diverts our attention from where it should be focused: on other human beings. It does get worse, though. Check out [Time's](http://www.time.com) story on Darrell Scott, father of Columbine murder victim Rachel or [ABCNews.com's](http://www.abcnews.com) story about a woman who awakes from a semi-coma after 16 years. It's a miracle when she awakes but nobody blamed God when she went to sleep for 16 years.

[thanks to Jon Henrik Gilhuus]

December 8, 1999. [NYPost.com](http://www.nypost.com) features Jane Seymour in defense of alternative medicine (AM). She played Dr. Quinn Medicine Woman on the popular TV series of that name. Her faith in AM is based on several anecdotes. She claims that an alternative therapy involving a massive injection of vitamin C into her father who was dying of cancer "saved his life." He died five months later of a heart attack. The fact that his traditional doctors didn't give the old man (he was 73 when he died) much time and the fact that he perked up for a few months after the AM treatment, convinced her that AM works. There's little doubt that the two-week treatment gave the old man hope and his depression lifted, making it possible for him to not just give up and die on the spot. But it didn't cure anything and the poor fellow died within months of his diagnosis. For all Seymour knows, the vitamin C injections weakened his heart and killed her father sooner than the cancer would have. (I'm only suggesting that the logic for such a conclusion would be as valid as the logic she used to reach hers.)

Were this just a matter of Seymour's personal beliefs, I'd ignore her, but she is on a campaign to get increased funding for research into herbal treatments and homeopathy, which she believes "can work miracles when combined with conventional remedies." She has also testified before a Congressional committee that "natural remedies saved her father when he was at death's door," a claim which at best is misleading and at worst is a lie.

Seymour's second anecdote involves her mother, who she claims had rapidly deteriorating eyesight due to [macular degeneration](#). Her mother was treated with [electro-crystal therapy](#), which involved placing crystals on her eyes and sending

electro-magnetic waves through the crystals. This alternative therapy was created by [Harry Oldfield](#) and is based on the belief in the healing power of [crystals](#). What wave frequency is used depends on one's [chakras](#).

Seymour does not mention what other treatments her mother was given, such as laser surgery, or how she knows the original diagnosis was correct. When she says that her mother's vision is "back to normal" what does that mean? Is this claim based on a vision exam or on her mother's word that she sees "fine" now? People with vision problems often report that they can see fine, either because they think they really can see fine or because they don't want to admit to themselves or let others know how serious their vision problem is.

Seymour's third anecdote comes from her sister, a homeopathic nurse, who reports that homeopathic remedies dramatically reduced swelling after brain surgery for an aneurysm. How she knows this is not clear.

A fourth anecdote involves Seymour's daughter. When she had her wisdom teeth extracted, Seymour "gave her the homeopathic remedy [arnica](#) and she had virtually no swelling." *Virtually* no swelling means she had swelling. I wonder if her daughter was given anything else besides arnica or if the surgery was done without anesthesia.

Let's hope Congress invites some real authorities and experts the next time it has hearings on how much of our tax dollars it should waste on homeopathy and other quack remedies.

[thanks to Jon Henrik Gilhuus]

December 1, 1999. [Reuters and ABCNews.com](#) announced that

Acupuncture relieves pain and a scan of brain activity proves it, researchers said today.

Huey-Jen Lee and a colleague studied 12 people, had no control group, but since they used high tech MRI equipment they must be doing good science. Here is what they did. They used

a filament to touch [the subjects'] upper lips, then detected the associated increases in brain activity with a magnetic resonance imaging device. As the subjects' pain was relieved with acupuncture needles placed between thumb and forefinger, images taken of their brains showed the activity diminishing. The pain-induced activity subsided in 60 percent to 70 percent of the entire brain during treatment with acupuncture needles, the researchers said.

What we will never know, because there was no control group, is what the brain would do in time when no acupuncture was applied. Perhaps it would show a decrease in brain activity as the pain subsided. In any case, we already know that [acupuncture can reduce pain](#).

[thanks to Jim Stroud and Jon Henrik Gilhuus]

November 30, 1999. PC Computing's Gordon Bass has jumped on the cell phone

alarmist bandwagon. [Is Your Cell Phone Killing You?](#) he asks in the title of his article. Yes, he answers in a maze of technical jargon that sounds impressive until you read between the lines. (Or *next* to them, where there was a link to the hottest selling cell phones, in case you are inspired to buy one while reading the article that tells you how you might be killed if you do so. The ads had been removed when checked later.)

Bass resurrects [George Carlo](#), still searching for research money, to stoke the fires of fear.

"We found evidence of genetic damage in human blood," said George Carlo, WTR's chairman. "We have suggestions of excessive mortality from brain cancers among wireless phone users, and we have very clear evidence of a statistically significant higher risk of neuroepithelial tumors. We now have more data suggesting problems with wireless phones than the FDA had when it banned silicone breast implants."

I certainly don't doubt the last claim, but I wouldn't brag about it. The FDA should not have banned [silicone breast implants](#). He's "found evidence" and there are "suggestions" and "clear evidence of statistically significant higher risk," etc. What he hasn't found is clear language that states that the research is very preliminary and that there is not a great body of evidence that warrants banning cell phones. I will agree that there is as much evidence to fear cell phones as there is to fear computers and their peripherals, as well as other household gadgets that emit electromagnetic radiation in doses that would make your breast implants curl.

What is most amusing about this article is how it represents the absurdity of modern journalism. The author claims that Motorola is suppressing evidence of cell phone harm, but there is a link to Motorola in the article which takes you to [another ZDNet page](#) where you can find out such things as the latest price of Motorola stock (118 9/16, up 1 5/8, apparently the news hasn't filtered down to the stockholders) and reviews of Motorola cell phones.

[thanks to Jim C. Stroud]

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 [the Skeptic's Refuge](#)

[More bunk](#) 



houris

*Surely those who guard (against evil) are in a secure place, In gardens and springs;
They shall wear of fine and thick silk, (sitting) face to face; Thus (shall it be), and We will wed them with Houris pure, beautiful ones. --The Qu'ran (44.51-54)*

Houris are beautiful black-eyed virgins believed by some Muslims to be waiting in heaven for the enjoyment of the faithful, especially men who die as martyrs. According to the [Qu'ran](#), the houris have never been touched by man or [jinn](#) (55.56).

Many Muslims and non-Muslims alike believe that terrorists who commit murder and suicide in the name of Islam commit their [sins](#) in order to gain instant admission to heaven, where they will enjoy many houris. According to [Sheikh Abdul Hadi Palazzi](#), an Islamic scholar and secretary general of [the Italian Muslim Association](#)., the belief in a sensuous afterlife filled with houris is based upon a [hadith](#)

collected by Imam at-Tirmidhi in “Sunan” (Volume IV, Chapters on “The Features of Heaven as described by the Messenger of Allah”, Chapter 21: “About the Smallest Reward for the People of Heaven”, hadith 2687) and also quoted by [Ibn Kathir](#) in his Tafsir (Koranic Commentary) of Surah Rhman (55), ayah (verse) 72:

It was mentioned by Daraj Ibn Abi Hatim, that Abu al-Haytham ‘Adullah Ibn Wahb narrated from Abu Sa’id al-Khudhri, who heard the Prophet Muhammad (Allah’s blessings and peace be upon him) saying, ‘The smallest reward for the people of Heaven is an abode where there are eighty thousand servants and seventy two wives, over which stands a dome decorated with pearls, aquamarine and ruby, as wide as the distance from al-Jabiyah to San’a.

This sounds like hearsay three times removed, but in any case the reward is obviously not restricted to those who die for the faith. Hence, it seems unlikely that anyone but the [terminally perplexed](#) would interpret this to mean that committing murder or suicide for Islam will automatically gain one many servants and a harem of houris.



[SkepDic.com](#)

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jinni (genie)

A jinni (*pl. jinn*) is a spirit in Arabic and Muslim demonology that is capable of assuming human or animal form and exercising supernatural influence over people for good or for ill. The jinn were popular in Middle Eastern literature, as in the stories of the [*Thousand and One Nights*](#).

The jinn make many appearances in the [*Koran*](#).

further reading

- The *Qur'an (Koran)*, chapter 72, [the Jinn](#)



Search the Skeptic's Dictionary



reader comments:

Jean Houston

20 Aug 1999

I went to a Jean Houston weekend at Rowe Conference Center in Rowe Ma. I have to say I think she is a pathological liar. She was very entertaining, augmenting what amounted to a two day lecture with music and sound effects provided by a sound engineer. Every now and then we would get up and dance around or play some silly game. She carts an actress around with her who she improvises with.

We had a good time, fooling around, and all but I became convinced that her anecdotes and personal history were bogus. They were all very puffed up and filled with encounters with the famous or the notorious. She made some comment about Eleanor Roosevelt

" Who here lived in New York City in the 1950's? Well, then you knew Eleanor Roosevelt, right? Of course you did, everyone did, she was around....."

and although people looked bewildered they all nodded in agreement. In private conversations with Ms. Houston it became clear that she was only interested in people with advanced degrees or who spoke ancient languages....like she was collecting people so she could borrow glory. She also made this astonishing admission: She goes into child oriented chat rooms masquerading as a 12 year old boy.

I felt a sense of "buyers remorse" after this weekend. And to think...I passed up the Patch Adams session for Jean Houston!!

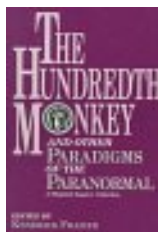
Janet Kingan

reply: I hope you didn't read the Skeptic's Dictionary *before* attending the session.

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[The Hundredth
Monkey and Other
Paradigms of the
Paranormal, ed.
Kendrick Frazier
\(Buffalo, N.Y.:
Prometheus Books,
1991\).](#)

the hundredth monkey phenomenon

The hundredth monkey phenomenon refers to a sudden spontaneous and mysterious leap of consciousness achieved when an allegedly "critical mass" point is reached. For example, people start thinking about ending world hunger. One person gets another to start thinking about it who gets another who gets another not ad nauseam or ad infinitum but until suddenly a breakthrough is achieved when the "critical mass" point is reached. Then, spontaneously and mysteriously, everybody starts thinking about ending world hunger.



The expression "**hundredth monkey**" comes from an experiment on monkeys done in the 1950's. It was alleged by Lyall Watson in his book *Lifetide* that one monkey taught another to wash potatoes who taught another who taught another and soon all the monkeys on the island were washing potatoes where no monkey had ever washed potatoes before. When the hundredth monkey learned to wash potatoes, suddenly and spontaneously and mysteriously monkeys on other islands, with no physical contact with the potato-washing cult, started washing potatoes! Was this monkey telepathy at work or just monkey business on Watson's part?

It makes for a cute story, but it isn't true. At least, the part about spontaneous transmission of a cultural trait across space without contact is not true. There really were some monkeys who washed their potatoes. One monkey started it and soon others joined in. But even after six years not all the monkeys saw the benefit of washing the grit off of their potatoes by dipping them into the sea. Lyall made up the part about the mysterious transmission. The claim that monkeys on other islands had their consciousness raised to the high level of the potato-washing cult was a lie.

The notion of raising consciousness through reaching critical mass is being promoted by a number of New Age spiritualists, including Ken Keyes, Jr. Mr Keyes has published a book on the WWW which calls for an end to the nuclear menace and the mass destruction which surely awaits us all if we do not make a global breakthrough soon. The title of his treatise is [The Hundredth Monkey](#). In his book he writes such things as "there is a point at which if only one more person tunes-in to a new awareness, a field is strengthened so that this awareness is picked up by almost everyone!" Well, it seems to be working for spreading the word about the hundredth monkey

phenomenon! In fact, there seems to be no end to those seeking spiritual transformation of themselves and the universe. Witness the [M100 or Hundredth Monkeying! project](#). "Our prayer is to bring benefit to all of world society without prejudice or bias." Who could complain about such a goal? If you want more information on hundredth monkeying, you should read [Morphogenetics and Monkeys](#). It has all the latest stuff on *building up your inner-energy field*, *doors of perception*, *healing* and the *millennium*. It must be very exciting to be part of a global fellowship of soul nourishers. As the Monkey Man says: "...healing the human heart is central to all other necessary changes in the twenty-first century." Amen.

further reading

- [The Hundredth Monkey Revisited](#)
- [Follow-Up Senior Researcher Comments on the Hundredth Monkey Phenomenon in Japan](#) by Markus Pössel and Ron Amundson
- ["The Hundredth Monkey"](#) by Ken Keyes, Jr.

[Amundson, Ron. "The Hundredth Monkey Phenomenon," *Skeptical Inquirer*, Summer 1985. Reprinted in *The Hundredth Monkey and Other Paradigms of the Paranormal*, ed. Kendrick Frazier \(Buffalo, N.Y.: Prometheus Books, 1991\).](#)

Amundson, Ron. "Watson and the Hundredth Monkey Phenomenon," *Skeptical Inquirer*, Spring 1987.

Pössel, Markus and Ron Amundson. "Senior Researcher Comments on the Hundredth Monkey Phenomenon in Japan," *Skeptical Inquirer*, May/June 1996.

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Last updated 02/17/02



[L. Ron Hubbard](#)

[hypnagogic state](#) 

[SkepDic.com](#)

Search the Skeptic's Dictionary



Too Good to Be True



[Truster \(DontLieToMe.com\) & Computer Voice Stress Analyzer](#)

"**Truster** is a fully computerized voice stress analyzer that allows you to detect the truth instantly."

Sound too good to be true? The best part is that it only costs \$89. It was \$189, according to the ad. According to a [competitor](#), the Truster used to sell for as much as \$2,500. Business might have dropped off when they issued a Hot Press Release announcing they'd analyzed President Clinton's denial of having had sexual relations with "that woman," Monica Lewinsky. According to the Truster, Clinton was telling the truth.

What is a voice stress analyzer, you might wonder? It is a machine that measures components of the human voice--frequency modulations--that are correlated with stress. No machine can detect stress directly, much less distinguish whether the stress is due to lying, guilt, stutter, fear, constipation, or some other emotion or physical condition. The frequency modulations, called "micro tremors" by those who measure them, must be interpreted by a human being. The machine doesn't do the analysis, the examiner does.

The Truster is manufactured by Makh-Shevet of Israel. It is not the voice stress analyzer of choice among American law enforcement agencies, however. That honor belongs to the machine manufactured by the swell-sounding [National Institute for Truth Verification \(NITV\)](#) of West Palm Beach, Florida, which sells its **Computer Voice Stress Analyzer (CVSA)** for [\\$9,250](#). NITV also charges \$1,215 per student for a six-day training session. NITV claims that over 800 law enforcement persons are using their machines. The CVSA is a digital device run with software on a laptop, making it very convenient and easy to take anywhere. Furthermore, it can be hooked up to a tape player, making it unnecessary for the subject to be present while getting a truthover. The computer "processes these voice frequencies and graphically displays a picture of the voice patterns." The display can be printed out, as well.

How accurate are the voice stress analyzers? According to Gary Baker of Baker Associates

Hundreds of professional studies in the fields of law enforcement, medicine, psychiatry, psychology, military, business, security, pharmacology, and government have consistently shown VSA validity,

reliability and accuracy at above 96%.*

Unfortunately, Mr. Baker doesn't mention any of these studies so I can't refer the reader to them. However, an expert in these matters did a [SCAN](#) of the above statement and determined that it is most probably false.

Just how deceptive is the advertising for the Deception Detector? NITV claims

Unlike the polygraph, drugs do not affect the results of the exam and there are no known counter-measures that will cause the ubiquitous "inconclusive" results associated with the polygraph.*

It's true that VSA does not allow an "inconclusive" reading. The investigator, however, has three options. He or she may conclude "Deception Indicated" or "No Deception Indicated", or " No Opinion - Additional Testing Required." Technically, having no opinion is not the same as being inconclusive, but the consequence is the same: the subject neither passes nor fails the Truth Test and gets the equivalent of an Incomplete grade.

Needless to say, NITV had no more difficulty finding law enforcement people to [endorse](#) this new device than did Wade Quattlebaum for his [Quadro Tracker](#). Again, we have to ask: why are law enforcement personnel especially gullible when it comes to pseudoscientific devices such as these? The fact is, it is not just law enforcement who are seduced by the promises of a quick and dirty test to tell who is lying. Devices such as these are used by retailers, law firms, small businesses, large corporations, and the military. One hopes this wide array of users is indicative of cynicism and a low opinion of those the device is used on, rather than a sincere belief in the scientific validity of the machines.

One would hope any scientist would recognize that since several equally plausible factors can cause what they are observing *in every single instance* there can be no theory to support a method for distinguishing "micro modulations" caused by the stress caused by lying. Such modulations will appear identical to those caused by constipation, fear, test anxiety, etc. It must always be the *judgment* of the investigator that identifies any voice modulation as due to lying and that judgment *of necessity* must be based upon something other than the output of the machine. What is it? Body language? The [blue sense](#)? Sometimes, no doubt. But the fact that many people who are subjected to Truth Detection tests actually believe in the validity of the tests and are often frightened into confessing may play a role in the popularity of these machines. Supporting this notion is [the kind of evidence NITV puts forth to demonstrate how their machine solves cases](#). In every case, the bottom line is that the suspect is confronted with the results of the CVSA exam and then confesses.





reader comments:

hypnosis

31 Dec 1997

Responding to your piece on hypnosis. I am in agreement with everything you say, especially with regard to all the repressed memory nonsense, trance-state theories, and the like. I use hypnosis in therapy with brain injured patients, chronic pain patients, and anxiety patients. Hypnosis, like you say, is not a special trance-like state, but it is an enhanced state of attention. Such a state can be induced by a good TV show, an interesting conversation, a good book, etc. In a hypnotherapy session, the therapist, with the help of the client, uses this state to help the client achieve behavior or emotional change. It is a client-centered process, and all clients are taught self-hypnosis, which is nothing more than teaching them how to gain better control of their own emotions, and apply it in the real world. Nothing mysterious. Well-controlled clinical experimental studies have shown that the addition of hypnosis to psychotherapeutic procedures makes them more effective.

You make a lot of good points, but don't throw it out entirely.

Robert M. Stein, Ph.D.

Center for Neurobehavioral Health, Ltd.

Lancaster, PA

reply: I agree that hypnosis has its uses in some forms of behavior modification. My main concerns are with claims that hypnosis brings about an altered state of consciousness and such associated claims as mind control or being able to communicate directly with the unconscious mind, reservoir of deep truths and memories of evil.

12 Sep 1997

I am greatly impressed by your lack of scholarly understanding of hypnosis. I would like to refer you to the work of the late Dr Milton Erickson and Dr Ernest Rossi as well as the American Society of Clinical Hypnosis (a nonprofit PROFESSIONAL organization). Regarding false memory syndrome: do you actually know of any hypnotherapist who "nurtures delusions of evil suffered" in their clients, thus doing "irreparable harm" ??? I think this is speculation on your part. People are motivated basically by two things: fear and/or self interest. It is obvious to me that you are misleading your readership.

Ken Steinmetz, CHT

San Francisco

reply: let me guess what motivates you: not fear. As for the reports of misuses of hypnotherapy, I refer you to Dr. Sanger's book on *Crazy Therapies*, to numerous reports from the American Psychological Association and to cases which have gone to trial and have been widely reported in the mass media.

14 Jan 1998

I wanted to respond to a comment made by Ken Steinmetz in his September response to the Hypnosis article. He said: "Regarding false memory syndrome: do you actually know of any hypnotherapist who 'nurtures delusions of evil suffered' in their clients, thus doing 'irreparable harm' ???? I think this is speculation on your part."

I know of one particular person who does precisely that: Budd Hopkins.

Well, OK, I don't know if he still uses hypnotism to do his dirty work, but I know that he used to. Perhaps he's been more careful lately to just "counsel" abductees rather than hypnotize them. I read a great book by Phil Klass (formerly of CSICOP) on the subject a few years back, and he detailed Hopkins' one-man crusade to convince the public that we were all abducted. Hopkins is one of those folks who are on my "people who should be stopped with a restraining order" list.

Budd fits Ken's description perfectly. He nurtures delusions of evil suffered, and does irreparable harm to his clients by making them think that they underwent horrible experiences that never really happened to them. People who've been convinced that they were abducted tend to be worse off than they'd be if they weren't. Would you hire somebody who put "anally probed by aliens" in the "extracurricular activities" section of his job application?

I know Budd is mentioned in the Skeptic's Dictionary, in the [review of the Nova program on Alien Abductions](#). I was surprised, however, that he didn't get a direct link in the "H" section of the index.

Tony Fabris

reply: Hopkins fits the bill but he is not a therapist.



[hypnosis](#)

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reader comments:

Ica stones

16 Dec 1999

The subject of the authenticity of these artifacts and what they may represent has been a topic of debate at an online forum. There I have posted the following:

Reposting some very relevant info regarding these "Ica stones." Every time I see another photo of one, my eye catches design elements or direct copies of images published in African Designs from Traditional Sources by Geoffrey Williams (Dover Publications, 1971). Dover released many books of this type as source material for artists; they are copyright free. I see the same designs used many places - I have used them myself.

Helen earlier commented on the fact that the stone artists must have seen something to inspire them. They did - and the exact source has inspired many of us.

The people who recently carved these 'curios' for collector's market (good money in this) obviously liked the style of Senufo, Ivory Coast art. The fact that these stones also depict people with dinos tells me that they were commissioned to provide 'evidence' for someone with an agenda. They are fraudulent.

Feel free to check me on this... it is only [\\$7.96](#) at a well known online bookstore.

reply: I did, and I couldn't find any design in the book that even vaguely resembled any of the pictures of the stones I've seen.

While I have offered this 'witness' to fundamentalist Christians (who feel, for some reason, that their arguments are bolstered with questionable evidence), I am completely ignored. So it goes. The image you have placed with your article on this subject is a very close copy of a Senufo fish design of Ivory Coast. It is this one which first caught my attention - then I identified many more as Senufo. They are all from widely available Dover books. I am glad to be able to share this with you... before I myself lose interest due to the evident disinterest of others.

Michael Emory

reply: This Senufo fish design isn't in the book you recommend.

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[Exhuming the Truth
Ben Erskine says he's
the swami's love child
and he wants a
chance to prove it.](#)
[BY RON RUSSELL](#)

incorruptible bodies

Incorruptible bodies are whole human bodies or parts of human bodies which allegedly do not decay after death because of some supernatural power which makes them apparently immutable.

The [Catholic Church claims](#) there are many incorruptible bodies and that they are divine signs of the holiness of the persons whose bodies they used to be. Perhaps, but they are more likely signs of careful or lucky burial, combined with ignorance regarding the factors that affect rate of decay.

For example, the severed head of King Charles I of England was exhumed after 165 years and according to the royal surgeon Sir Henry Halford

The complexion of the skin was dark and discolored. The forehead and temples had lost little or nothing of their muscular substance; the cartilage of the nose was gone; but the left eye, in the first moment of exposure, was open and full, though it vanished almost immediately: and the pointed beard, so characteristic of this period of the reign of King Charles, was perfect. [The head] was quite wet, and gave a greenish-red tinge to paper and to linen which touched it. The back part of the scalp . . . had a remarkably fresh appearance. The hair was thick . . . and in appearance nearly black. . . .*

The preserved head was due to accident and had more to do with how it was buried at St. George's Chapel in Windsor than to any special holiness of Charles I.

In 1952, there was a well-publicized case of an Indian Hindu in California who entered [mahasamdhi](#) and whose body, it was claimed, seemed incorruptible. [Paramahansa Yogananda](#) was the founder of the [Self-Realization Fellowship](#), which claims that

On March 7, 1952, Paramahansa Yogananda entered *mahasamadhi*....His passing was marked by an extraordinary phenomenon. A notarized statement signed by the Director of Forest Lawn Memorial-Park testified: "No physical disintegration was visible in his body even twenty days after death....This state of perfect preservation of a body is, so far as we know from mortuary annals, an unparalleled one....Yogananda's body was apparently in a phenomenal state of immutability."*

The statement of the director of Forest Lawn, Harry T. Rowe, is accurate, but incomplete. Mr. Rowe also mentioned that he observed a brown spot on Yogananda's nose after 20 days, as sign that the body was not "perfectly" preserved. In any case, the SRF's claim that lack of physical disintegration is "an extraordinary phenomenon" is misleading. (One wonders how much digging into the mortuary annals they did. Very little, I imagine.) The state of the yogi's body is not unparalleled, but common. A typical embalmed body will show no notable desiccation for one to five months after burial without the use of refrigeration or creams to mask odors. According to Jesus Preciado, who has been in the mortuary business for thirty years, "in general, the less pronounced the pathology [at the time of death], the less notable are the symptoms of necrosis." Some bodies are well-preserved for years after burial (personal correspondence, Mike Drake). Some, under extraordinary conditions, are well-preserved for [hundreds](#), even [thousands](#), of years.

Immutable human bodies are ultimately cases of apparent immutability. All human bodies and body parts disintegrate with time unless they are preserved by special conditions such as absence of oxygen, bacteria, worms, heat, light, etc.

See related entry on [St. Januarius](#).

further reading

[reader comments](#)

- [INCORRUPTIBILITY: Miracle or Myth?](#) (Investigator No. 45 1995 November) Harry Edwards
- [Mummy News](#) - James M. Deem
- [Bog Body Stories](#) - James M. Deem

[Nickell, Joe. *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books, 1993\).](#)

Pringle, Heather. *The Mummy Congress : Science, Obsession, and the Everlasting Dead* (Hyperion, 2001).

[Quigley, Christine. *Modern Mummies: The Preservation of the Human Body in the Twentieth Century* \(McFarland & Company, 1998\).](#)

 [incantation](#)

[Indian rope trick](#) 

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 [magnetic therapy](#)

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mahasamadhi

Mahasamadhi, according to Hinduism, is a God-illuminated master's conscious exit from the body at the time of physical death.

See related entry on [incorruptible bodies](#).

Last updated 12/30/01

[St. Malachy](#) 

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Januarius a.k.a. St Gennaro

Januarius or St. Gennaro is the patron saint of Naples, Italy. His dried blood is said to miraculously liquefy twice a year: on his feast day of September 19 and on the first Saturday in May. On those occasions, a vial allegedly containing the saint's dried blood is removed from the cathedral in Naples and taken on procession through the city streets. The ritual used to be performed on December 16, "but the liquefaction occurred relatively rarely on those occasions--apparently due to the colder temperature--and those observances have been discontinued" (Nickell, 81).

This so-called [miracle](#) has been occurring for some 600 years without fail, according to the faithful. Believers and uncritical reporters repeatedly confirm that the powdery substance kept in the vial is blood and that scientists cannot explain why it liquefies. However, Italian scientists who examined the vial of blood in 1902 and in recent years were not allowed to take a sample of the stuff to the lab. They were allowed to shine a light through the vial and on the basis of a spectroscopic analysis concluded the substance is blood (Nickell, 78). It is not true, however, to say that scientists can't explain why the stuff in the vial liquefies regularly. A professor of organic chemistry at the University of Pavia, Luigi Garlaschelli, and two colleagues from Milan offered [thixotropy](#) as an explanation. They made their own "blood" that liquefied and congealed, using chalk, hydrated iron chloride and salt water. Joe Nickell did the same with oil, wax and dragon's blood [a resinous dark-red plant product].

The Neapolitans are a superstitious people. There are about 20 allegedly miraculous vials of various saints' blood and nearly all of them are in the Naples region, "indicative of some regional secret" (Nickell, 79). Neapolitans believe that if the blood fails to liquefy, disaster will soon follow. They claim that on at least five occasions after the blood failed to liquefy there were terrible events such as a plague in 1527 and an earthquake in southern Italy that killed 3,000 people in 1980. The proponents of this alleged miracle do not mention how many times disaster *didn't* happen after the blood failed to liquefy, nor do they note how many times disasters *did* happen after the blood *did* liquefy. Even though the vial is only taken on parade twice a year, apparently the powder liquefies more than a dozen times a year.* [Selective thinking](#) seems to be going on here.

According to traditional Catholic hagiography, Januarius was a bishop beheaded during the reign of the emperor Diocletian (284-305). Yet, there is no historical record of his alleged blood relic before 1389, more than a thousand years after his martyrdom. Some doubt that Januarius even existed (Nickell, 79).

Most skeptics are convinced that whatever is in the vial is reacting to some natural phenomenon, such as temperature change or motion. Even some religious thinkers consider such 'miracles' frivolous and unworthy of God.

See related entries on [incorruptible bodies](#) and [miracles](#).

further reading

- [The Blood of St. Januarius](#) di L.Garlaschelli, F.Ramaccini,S.Della Sala
- [Examining Miracle Claims](#) by Joe Nickell
- [The Life of St. Januarius](#)

[Nickell, Joe. *Looking for a Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books: Buffalo, N.Y., 1993\).](#)

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reader comments:

incorruptible bodies

10 Feb 2000

First, a very minor correction: "According to Jesus Preciado, who has been in the mortuary business for thirty years, 'in general, the less pronounced the pathology [at the time of death], the less notable are the symptoms of necrosis.'" The quotes around the necrosis clause effectively attribute that language to Preciado. However, it is my own paraphrasing of Preciado's remarks, if my memory serves me.

Second, a quite interesting bit of trivia: SRF reported (as you quote): "On March 7, 1952, Paramahansa Yogananda entered mahasamadhi...." Of course, entering mahasamadhi elicits images of a peaceful event, the soul blissfully (even purposely) leaving the master's body, the God-illuminated master having readied himself for this supreme moment....

Well, it didn't go quite like that. As it happens, Yogananda died of a HEART ATTACK [Question: why would a heart-diseased body become incorruptible after a fatal heart attack?]. What's more, the heart attack occurred while he was giving a speech--in front of a large audience. The attack happened as he was about to introduce a colleague. He was 65--pretty young for a heart attack victim, even in 1952.

Also in the news: SRF is moving Yogananda's remains to a sarcophagus at the group's headquarters as part of a \$40 million expansion. Yep--that's seven zeros. [I wonder if they'll be publicly opening the old casket to look at the "incorruptible" remains?]

I guess the moral is this: Money corrupts, but incorruptibility enriches.
Mike Drake



Instrumental Transcommunication (ITC)

ITC is the alleged communication of spirits via various instruments such as the television, computer, fax machine, tape recorder, hard drives, video cameras, digital cameras, and so on. Skeptics consider these communications to be liberal interpretations of natural phenomena or hoaxes.

See related entries on [electronic voice phenomena](#), [ghosts](#), [orbs](#), and [psychic photography](#).

further reading

- [Haunted Cape May](#) by Sharon Hill
- [World ITC](#)

[Nickell, Joe. *Camera Clues: A Handbook of Photographic Investigation* \(University Press of Kentucky, 1994\).](#)

[Nickell, Joe. *Entities : angels, spirits, demons, and other alien beings* \(Amherst, N.Y. : Prometheus Books, 1995\).](#)

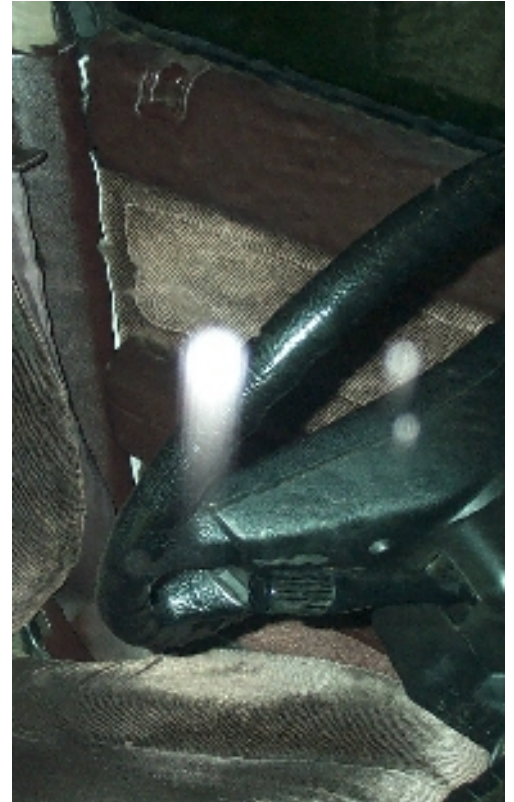
[Nickell, Joe. "Ghostly Photos," *Skeptical Inquirer*, July/August 1997](#)





orbs

Orbs are allegedly ghost or spirit energies, or "[multi-dimensional beings](#)," invisible to the naked eye but visible as balls of light on film. Though some people believe orbs are [life-forms](#), they are most likely due to reflections caused by flash or other naturalistic light sources caught on film. One [orb enthusiast](#) claims that "the orb is the basic energy pattern of the spirit world," though how he knows this is unclear. [Another](#) thinks "the orb is the energy being transferred from a source (i.e. powerlines, heat energy, batteries, people, etc.) to the spirit so they can manifest." This explains why they are round, he says, because that is what one would expect from the laws of physics. He fails to mention which laws he has in mind, however.



See related entries on [rods](#) and [psychic photography](#).

further reading

[Nickell, Joe. *Camera Clues: A Handbook of Photographic Investigation* \(University Press of Kentucky, 1994\).](#)

[Nickell, Joe. *Entities : angels, spirits, demons, and other alien beings* \(Amherst, N.Y. : Prometheus Books, 1995\).](#)

[Nickell, Joe. "Ghostly Photos," *Skeptical Inquirer*, July/August 1997](#)

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occult & occultism

The occult are such things as [alchemy](#), [magic](#), [astrology](#), and other "arts" of [divination](#) which use [incantations](#) or magic formulae in an attempt to gain hidden knowledge or power.

Occultism refers to the belief in hidden or mysterious powers that can be controlled by humans who have special knowledge of these powers.

further reading

[Nickell, Joe. *Secrets of the supernatural : investigating the world's occult mysteries* with John F. Fischer \(Buffalo, N.Y. : Prometheus Books, 1988\).](#)

[Seligmann, Kurt. *The History of Magic and the Occult* \(Random House 1997\), reprint of 1948 edition.](#)



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reader comments:

IQ & Race

17 Dec 2000

The claim of advocates of IQ testing is that IQ measures innate ability. Actually, it measures (in part) the opportunities that the person has had to learn over his lifetime. Poor children get second-rate educational opportunities, and this is reflected in their achievement on all sorts of tests, including IQ tests.

Viewed in this way, the gap in IQ scores between blacks and whites is an indictment of the lack of opportunities to learn that blacks "enjoy". Having been systematically oppressed and deprived of the opportunities of acquiring those characteristics that society uses to measure success, blacks are undeniably inferior, as measured in a number of ways: Income, education, housing, and IQ as well. The claim that this gap arises from "inherent" inferiority is a pseudo-scientific way of justifying the existing lopsided distribution of wealth and power, which is widely believed because it flatters whites and the sense of racial superiority. In fact, the IQ gap, like the income gap, is really a measure of racism, not genetics.

I suggest that you include in your bibliography [Science and Politics of IQ by Leon J. Kamin](#), an old book (1974) but a good one. Kamin exposed the research of [Cyril Burt](#) as fraudulent. Burt researched identical twins, and "proved" that IQ was inherited. Burt faked his data over a period of decades, and for good measure also invented a nonexistent research assistant.

Although psychologists are embarrassed to talk about it now, Burt was (before Kamin exposed him) quite prominent in the field. He was not at all a marginal figure: His faked results were a standard in the field, and were incorporated into many widely used textbooks. Burt received high professional honors, and was knighted in his Britain, and given an award by the American Psychological Association.

The Bell Curve was an attempt to revive the genetic argument, after enough years have gone by that people have forgotten about Burt.

John W. Farley
Professor of Physics UNLV

13 Dec 2000

I enjoy and approve of most of your site with the exception of the entry on intelligence and race. Consider this opening paragraph:

"IQ" stands for 'intelligence quotient.' A person's IQ is supposed to be a measure of that person's intelligence: the higher the IQ number, the greater the intelligence.' This is inaccurate, however, since it assumes that there is only one kind of intelligence.

Straw-man time!!! The remark that IQ assumes only one kind of intelligence is utterly false. How is it possible you could make such a statement? IQ tests measure a wide range of cognitive skills. You know this full well. Generally, most experts agree that the only things IQ test do not adequately measure are "creativity" and emotional sensitivity. Musical and some aspects visual art skills might also be inadequately valued. Memory, especially long term may also be neglected.

One of the strongest pieces of evidence of the race/IQ link is something as simple as the relationship to brain size, IQ and race. It's a taboo to talk about it but the relationships are well established. Finally, if you broaden the definition of IQ to include the overlooked skills, do you really think you can offset the wide racial gap? No one has been able to do it yet. One of the more pathetic attempts has been to include something called "kinesthetics" to give Blacks who can dance and play sports well, an edge. What a pathetic thing to imagine Black kids "studying" for an IQ test on a playground and dance hall, instead of a library.

John Field

reply: I've seen this kind of reasoning on the [David Duke](#) page. But you probably know that it is not how big it is, but what you do with it that matters. Anyway, [big is a relative thing](#). Brain mass is smaller in women than in men, but not in ratio to body weight. (Why doesn't an elephant's big brain translate into big intelligence? Because the big brain is needed to *control* those massive *muscles* and handle the enormous potential for *sensation* from the huge skin area, etc.) Men and women score about the same on IQ tests. It is probably pointless to direct you to [Stephen Jay Gould's *The Mismeasure of Man*](#) where these notions about race and brain size are evaluated and dismissed. (I think you meant to say that it is taboo to claim that there is a connection between racial brain size and racial intelligence, not that it is taboo to talk about these relationships. Gould certainly talks about these relationships. He just doesn't agree with people like you and [J. Philippe Rushton](#)). But, let's assume for the sake of argument that you and the scholars who attack Gould are right.

Even if it were true that one race has a smaller brain by some sort of measurement, what would follow from that? Nothing much. And even if it

were true that one race were found to be less intelligent by some measurement than others, what would follow from that? Even if it is true that American blacks score on average about 15 points below so-called "whites," what follows from that?

Do you think it follows that "superior" races are justified in enslaving "inferior" races? Are they justified in treating them as sub-humans? Are they justified in denying them equal protection of the laws? On what grounds? Even if an entire race or gender had smaller brains and IQs than other races and the other gender, it would not follow from that that a given individual of that race and gender had a smaller brain or lower IQ than a given individual of other races or the other gender.

I have never heard a white supremacist claim that it is justifiable to discriminate against whites whose IQs or brain size is smaller than other whites. Why not? Shouldn't there be a hierarchy of discrimination among whites themselves? The one with the biggest brain and highest IQ should get to discriminate against everybody else, while those below should get to discriminate against all those below them. And shouldn't it be justifiable for blacks with bigger brains or higher IQs to discriminate against whites with smaller brains or lower IQs?

By the way, how do you explain the fact that black northerners scored higher on IQ tests than white southerners when soldiers were recruited and tested during WWII? (Bergen Evans, *The Natural History of Nonsense* (New York: Alfred A. Knopf, 1957), ch. 14, "The Skin Game.")

Finally, does IQ measure one kind of intelligence? It seems that people who are probably your heroes, like [Arthur Jensen](#) and [Chris Brand](#), use the term "g factor" to mean "general intelligence" and they think that IQ tests measure this g factor, though defining it in a clear way has proved difficult.

p.s. A *straw man* is a kind of argument used in a refutation wherein one distorts an opponent's position or argument in order to make it easier to refute. You are guilty of the fallacy of *false charge of a straw man*. The next time you think someone is wrong, you should simply say "I think you are wrong" or "You are wrong and here is the evidence to prove it." Falsely charging people of straw man is a red herring unworthy of man with a g factor like yours. If you like fallacies, you might take some time to study the fallacy of division. This is the fallacy of reasoning that a property which belongs to a class or group also belongs to each individual in the class or group. You may belong to a group that has a higher IQ or larger average brain size, but *you* may have a low IQ and have a small brain. Nevertheless, we should treat you with the respect due every human being until you behave in such a way that justifies our treating you differently.

John Field replies

*Women's brains are smaller in part because they have smaller body mass, as you say. But women have a lower ratio of high neuron-density body tissue than men . That is, the lower demand for neuron service by their already smaller brains (due to smaller general body mass) is depressed *further* by the fact that their body tissue is disproportionately greater for low neuron-density tissue such as bone, fatty tissue and breast tissue, as compared to muscle tissue. Sexual sensory neurons (in the brain as well as the genitailia [sic]) for females also are less numerous. Furthermore, females score slightly lower on IQ tests due to their marginally weaker symbolic reasoning , and weaker spatial relationship comprehension and weaker physical coordination, all of which might be expected to be reflected in less brain tissue.*

Bob Carroll replies

1) Women have *greater*, not lower, neuron density than men. 2) Women score about the same as men on IQ tests because IQ tests are designed that way. 3) In [The g Factor - The Science of Mental Ability](#) Arthur Jensen reports on his factor analysis of a ton of data and concluded: "The sex difference in psychometric g is either totally nonexistent or is of uncertain direction and inconsequential magnitude."

In addition to [The g Factor - The Science of Mental Ability](#), you might want to read [Gender mender](#) by Dan Seligman. His article addresses the question "Are Men More Intelligent than Women?"

More John Field

Interspecific comparisons are much less meaningful than intra specific comparisons. Highly intelligent elephants could be expected to have larger brains than dull elephants, after adjusting for differences in relative body mass, just as highly intelligent humans have larger brains than dull humans, after appropriate body mass adjustments.

I read [Gould's Mismeasure of Man]. It's bogus. You need to read "The Mismeasure of Gould" - It is a scholarly debunking of the ideologue that Gould is....He is not much respected in the field of psychometrics. You might even consider a page at your site debunking him....He's a PC ideologue. And he's been caught in dishonesties....

The measurements [of brain size] are straightforward; cranial

capacity and organ mass - both easily determined by NMR [Nuclear Magnetic Resonance].

What follows [from one race having bigger brains than another race] is the suggestion that the smaller brains of the race in question would have less functionality, as would be expected for any other organs of smaller mass, e.g., smaller hearts, livers and lungs; all could be expected to function, on an absolute quantitative scale, more modestly.

There is no "if" about [some races having smaller brains and being less intelligent].... Blacks on average, measure dramatically less intelligent, with all that fairly means and implies. The results are manifest and glaring, in this society and in all others on earth. It is a fact of life you need to come to terms with in an intellectually honest and courageous way. It's essential, because the truth of the race/IQ/intelligence link will be incontrovertibly established with ongoing genome research. Science can be slowed, but not stopped by ideology.

The disparity is unquestioned among researchers. In the second place, the definitional issue of "whites" or "blacks" is of no import, since the majorities of each group are outside any ambiguous gray area. And the grey area (persons of mixed race), when considered, reinforces the validity of IQ/race linkages because the spread of the IQ differences correlates proportionally with the degree of racial intermixing. This is why mulattoes score higher, on average, than dark skinned Blacks, but lower than Whites. What the difference in race-linked deficiency in intelligence means is simply that they are seriously less intelligent, as IQ fairly measures broad (if not perfectly all inclusive) intellectual ability. There is plenty of research to demonstrate the great adaptive value that a fifteen point edge provides in the modern civilized world. The gap shows up in every imaginable aspect of Black culture except for musical and kinesethic skills. And it exists for all Black cultures everywhere on the planet and throughout human and history. (Please do not cite bogus Egyptology or Nubian Empire myths.) It reasonably accounts for their failure to adapt to modern society in America, as well as in any-and-all other mixed cultures. The comparison of Black nations to non Black nations, speaks for itself. Even the diversity ideals of Brazil and Cuba show a disparity in social adjustment along the B/W race and IQ-specific lines. There are no general exceptions, only individual ones.

[Are "superior" races are justified in enslaving "inferior" races?] No, not any more than low intelligence is justification for mistreatment for any group or individual.

[Are they justified in treating them as sub-humans?] No. Not in my opinion. But the problem with low black IQ is compounded by their at least equally debilitating cultural deficiencies. The term "Sub human" is terribly loaded and exaggerates the cultural and IQ differences for the purpose of dehumanizing them, as a group. What they are in reality, is a variety of humans with somewhat less sophisticated brain function, and a less adaptive culture, as a group.

[Are they justified in denying them equal protection of the laws?] Not in my opinion. On the contrary, I prefer strict equality of treatment regardless of race or excuses based on race. By this I mean no "affirmative action" with its double-speak for "leveling the playing field" by making it unlevel in their favor; aka "reverse discrimination"....judging people as individuals is the fairest policy. Don't you agree? One of the great injustices of ignoring the intelligence deficit as the cause for Blacks' maladjustment is that it falsely implies blame on White people, as in "four hindered [sic] years of discrimination" and "white privilege" or "racism".

Bob Carroll replies

You have already established above, in your claims about male/female differences, how accurate your claims are, so I am not going to bother with a point-by-point correction of your inaccuracies and falsehoods on race differences.

However, your insinuation that affirmative action programs are not a response to two hundred plus years of slavery, one-hundred plus years of segregation and invidious discrimination, racism and white privilege is as about as far from the truth as Mars is from Alpha Centauri.

It is a shame that people like [Ward Connerly](#) cannot oppose preferential treatment programs without being called an Uncle Tom and that whites cannot oppose them without being called racists. But the fact is that those programs are a direct result of centuries of oppression, much of it at the hands of the United States Congress and U.S. Supreme Court, as well as at the hands of many state and local governments.

More John Field

*....white supremacists, like most people everywhere *do* "discriminate" on the basis of intelligence. That's exactly what aptitude and admissions tests are meant to do. This is necessary*

to advance our civilization. It's called "meritocracy."

....There is...a hierarchy of discrimination among whites themselves The brightest people go to Berkeley and Stanford and get the best jobs and highest social prestige. The slightly less bright go to UCLA, and then San Francisco State, then City and Community Colleges, then semiskilled or unskilled trades, then sheltered employment settings. I'd call that a "hierarchy" wouldn't you?

A Black math teacher who flunks a white student discriminates against whites with smaller brains or lower IQs...(But of course, the more familiar juxtaposition is many times more likely for reasons herein presented).

Bob Carroll replies

I thought it was clear we were talking about *invidious* discrimination, not the kind of discrimination any thoughtful and reasonable person might use in making decisions. In any case, your examples of a meritocracy are just as much examples of a plutocracy.

More John Field

One explanation [for the fact that black northerners scored higher on IQ tests than white southerners when soldiers were recruited and tested during WWII] is that much of the cream of Southern White elite was killed off in the Civil War, where the mortality rate was much higher for NCOs and commissioned officers (high IQ types) than for enlisted men. Another reason is that military service for Blacks in the 1940's was seen within their culture as something of a status symbol, attracting the brighter blacks, while the stoop laborers were generally considered less desirable by the recruiters. In other words, Blacks generally had to have a little more on the ball than their racial/ demographic cohorts to get accepted. Yet another explanation is the explanation which accounts for why northern Blacks (on average) score higher than southern Blacks. Which is related to the explanation as to why rural people everywhere (on average) score lower than urban people regardless of race.

Bob Carroll replies

No one can accuse you of lacking imagination, but if you think too deeply about your last claim you might see why some people think the environment plays a significant role in

test scores.

More John Field

*The fact that a clear quantitative definition for "g" is not easy to formulate does not diminish its reality one iota. Whatever you call it, even in the most general terms, like "higher brain function", it is still an obvious and powerful assembly of cognitive functions. It distinguishes the brightest from the dullest. You **do** appreciate that, don't you? There are sweet people who are dull, but **bright** people who are sweet, too, and they are the superior people, for that reason, in general, are they not? Test scores measure it and it correlates very highly with educational success, social adaptability.*

Bob Carroll replies

Now here we have an example of a straw man, John. I never denied the *reality* of g. What I said was that those who use the term have difficulty in defining exactly what it is and that, whatever it is, it is some sort of "general intelligence." I don't deny its importance or its correlation with such things as educational success. What I deny is that g is the only kind of intelligence there is.

More John Field

I think your lead-in remarks met the definition [of straw man] by falsely implying an erroneous position held by me and/or others. That position, again, was that IQ does not represent a wide variety of cognitive skills. No informed person believes that, so why set it up if not for the purpose of easily knocking it down? Yes, I'd call that a straw man.

Bob Carroll replies

I said IQ represents one kind of intelligence, not that it doesn't measure several distinct skills (verbal, mathematical and spatial).

More John Field

The application of that fallacy [of division] test does not refute the fact that exceptions to rules do not necessarily invalidate the rules.

....remember, race correlates with IQ, IQ correlates with

intelligence, which correlates with social adaptivity, which correlates with behavior and attitudes, which correlate with crime, poverty, hostility, and failure.

Bob Carroll replies

And what follows from that, John? No, please, don't answer. Take it as a rhetorical question. I think you've said enough and I'm going to leave well enough alone.

Well, actually, I can't resist one or two more comments.

I have noticed a significant difference in head size between men and women, but I sure haven't noticed a significant difference among Asians (who are supposedly walking around with the biggest heads), Caucasians and Negroids. If there are racial size differences, they are subtle. But of course I may just not know how to classify people correctly.

What happened to your earlier attitude of let's treat everyone individually and on their merits? If you really believed that I don't think you'd be going around measuring everybody's head. oops, straw man again. I guess I just can't help myself.

further reading

- [A Review of the Bell Curve: Bad Science Makes for Bad Conclusions](#) by William J. Matthews, Ph.D.
- [Stephen Jay Gould's review of *The Bell Curve*](#)
- [She Brains/He Brains](#) by Eric H. Chudler, Ph.D.
- ["What to the Slave is the Fourth of July?"](#) by Frederick Douglass
- [Gender mender](#) Dan Seligman, *Forbes Magazine*, 04.06.98 (the question the article addresses is "Are Men More Intelligent than Women?")
- [Sex, Mathematics, And Political Correctness](#)

[more comments](#)



[IQ and Race](#)

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On Scientific Racism

A review of *The Science and Politics of Racial Research* by William H. Tucker (Chicago: University of Illinois Press, 1994).

by A. C. Higgins

Below is my review of William H. Tucker's social history of racial research. Tucker provides a detailed history of the movement from its 19th century origins through contemporary Jansenism. Tucker's book appeared at nearly the same time as *The Bell Curve* and that book is not included in his review. However, the splendid thing about Tucker's exposition is that the Herrnstein/Murray kind of science fits right in; one can see its context.

My review is over long. Yet, I have omitted here detailing the telling descriptions of the battles over school desegregation in the 1950s, the Civil Rights Movement of the 1960s, and the reemergence of biological explanations of social behaviors in the 1970s and 1980s. The reader can savor those detailed tellings for himself or herself. Rather, here I would like to emphasize a major contribution made by Tucker to the major interests of this board: fraud in science. Tucker has exposed the mental gymnastics of the social scientist who abuses science in the name of ideology. That is precisely what Tucker sees scientific racists as doing: abusing science by using it as a mechanism of ideology.

The reasoning of scientific racists goes like this: science can tell us the facts and, once we know the facts, we will know what to do. However, science cannot provide a basis for human judgment precisely because science can never provide all the facts. Science is, at best, a statement of probabilities, an approximation, a contingency statement. The judgment that all men are created equal is not a scientific fact but a political and moral judgment about which science has nothing to say.

Attempts to use science as if to say something about the moral order are misunderstandings or worse. Science says nothing about the ought-to-be and science can say nothing about the moral order. If African Americans are short or tall, young or old, male or female, or whatever else, the knowledge says nothing about their rights under the Constitution.

But let me paraphrase and quote Tucker for he makes his points very well:

Scientists claim to be impartial, neutral, "value-free" investigators of the world around them; science is supposedly a procedure for arriving at truth. However, scientists have done wicked things down through history and done them in the name of science. One major example of what has been done in

the name of science is racial research and in this book, Tucker provides an overview of racial research from Condorcet (1795) to the present. Briefly, he finds that for two centuries "there have been scientists obsessed with proving that minorities, poor people, foreigners, and women are innately inferior to upper-class white males of northern European extraction." (p. 4) This has been an attempt, quoting Condorcet, "to make nature herself an accomplice to political inequality." (p. 5)

There is implied here a notion that science can, somehow, explain and justify political inequality. This, of course, appears to make scientific authority a powerful strategy for influencing public policy. If political inequality is seen as a natural consequence of biological inferiority, and biological inferiority can be demonstrated scientifically, it seems that rulers rule according to the laws of nature, not of man. Thus, rulers gave scientists the political task of demonstrating that biology determined their superiority and their subjects' inferiority. More, rulers want it clear there is "no injustice" in their rule. (p. 7) What this book shows is that the "effort to prove the innate intellectual inferiority of some groups has led only to oppressive and antisocial proposals; it has no other use. Indeed, there is no 'legitimate' application for such a finding." (p. 8)

Science is not and cannot be a source of moral authority but the pretense that science can be represents a politically appealing proposition that has become, over the years, a basis for an ongoing campaign to establish a scientific rationale for political and racial oppression. And it is worth reiterating Tucker's thesis: such scientific demonstrations have no other reason for existence than "proving inequality's moral basis." This might well be called the creation of an ideology by means of science but, please note, the ideology existed before the "science" got done and what got done was demanded by the ideology.

Thomas Jefferson put the matter this way concerning blacks: "whatever be their degree of talents, it is no measure of their rights." (quoted here, p. 11) But, in fact, in the name of science various scientists have eschewed that morality and political judgment preferring that their science prove the worthiness of citizens.

Scientists curry the favor of bigots by providing apparently useful data to them. Take one example: by the 1840s, the challenge to slavery had begun in earnest and so had the defenses of that peculiar institution. In the early part of the decade, the flawed data of the census of 1840 came to be used as a political weapon against the abolitionists. Data of the 1840 census seemed to indicate that blacks living in the North tended to suffer from mental illness at a rate far higher than slaves living in the South. Indeed, free blacks in the North had lunacy rates ten times the rates of slaves in the South. The conclusion was drawn by Southerners that the Negro suffered unduly from "mental activity and where there is the greatest mental torpor, we find the least insanity." (p. 15) Slavery, it would appear to those who looked at these data, was the appropriate social state of the Negro.

Well, the data were wrong. The inexperienced enumerators had erred. And the champions of the South knew well the data's flaws but, like politicians now, they used the data of incipient demography to their own advantage. Then, as now, ideologues used facts which suited their special perspectives. Science served perspective -- not the other way around.

The special perspective of racial researchers is the subject of Tucker's book. The special perspective

of these researchers, from the beginnings of their "research" until the present, is their use of "science" to promote political goals. For this perspective was born of the enthusiasm of the 19th century European scientist who imagined, wrongly, that science could save human beings from the need to make political judgments. The 19th century English scientist most particularly, imagined that biological science (a la Darwin) and philosophy (a la Spencer) had provided a method for escaping a society of human making: surely, science could save us by showing us the right, the natural, the biologically correct method of surviving as the fittest. And here, Tucker begins the development of the scientific racist perspective with the work of Francis Galton, Darwin's cousin. Sir Francis' views are based on the idea that science and mathematics can together provide an alternative "religion" -- a belief system -- which, by virtue of its methods, can be ever so much more effective than the old superstitions. That new religion of science applied to justifying Victorian England's social system by demonstrating clearly (and scientifically, of course) its "inevitability" -- and therefore the rightness -- of the class system as it existed in England, Europe's most advanced, progressive and evolved nation. (It also justified Francis Galton's claim to superiority over the hated aristocracy.)

Galton was not interested in the details of his cousin's evolution so much as he was fascinated by the idea of "controlling" evolutionary development through the techniques of proper breeding. Just as dog fanciers could control the development of breeds, so too could right thinking scientists develop a "new science" which would promote the proper sort of human being through scientifically controlled matings. He developed the "science" of Eugenics whose goal was just such control and he promoted quantification and mathematical measurement of "desirable traits" so as to provide the necessary data on the basis of which "truly proper breeding" could occur. The search for measurements of desired traits led directly to the IQ test and the enthusiastic embrace of Eugenics by those interested in the measurement of that trait. It was a truly symbiotic relationship: psychologists got money while the Eugenicists got the science of trait psychology.

Galton's work was picked up in the U.S. by politically and socially elite groups at, among other places, Harvard University where good WASP's sought to protect and defend the country against the incursions of "undesirables." It was at Harvard, in 1895, that the infamous Immigration Restriction League was formed. And, desiring data to prove the inferiority of recent immigrants to our shores, various wealthy Americans endorsed and supported the IRL and the research facility built at Cold Springs Harbor, New York, with Harriman money (also Carnegie and Rockefeller support). There, Charles B. Davenport conducted research and political activity over the first thirty years of this century. And all of the science was designed to promote the idea of biological justification for the social order. By demonstrating the "inferiority" of those at the bottom of the social heap, the upper classes presumptively justified their being at the top of the social scale. They could "prove" their superiority with the IQ test. And, with the same instrument, prove the inferiority of the black. Of course, their proofs ignored "All men are created equal..."

...(S)cientific evidence was, or ought to be, the prerequisite for political and moral conclusions. For the social scientists, there were no self-evident truths; all men (and most certainly women) were not born equal, nor were they endowed with any inalienable rights unless science could establish their existence. All "social and political institutions," proclaimed James McKeen Cattell, the psychology professor who coined the term mental test, had to be "based on the truths determined by science," and "no social system, no political theory ... can be maintained when it is not in accord with science." The Declaration of Independence was therefore to be honored in the same manner as other outmoded

scientific theories -- "as the dead bodies over which we have advanced." (p. 106)

And this kind of thinking was not limited to a few crackpots or protofascists. One had to submit to Nature and the natural order of things: George Barton Cutton, the president of Colgate, declared that "Democracy is just out of the question." The IQ test had:

...disclosed too many "mentally subnormal" for universal "manhood suffrage" to be realistic, and yet we were about to double "our greatest ... failure," wrote Cutten, contemplating imminent passage of the Nineteenth Amendment. Though it might be "a wise course to treat the people like children and let them play at governing themselves," he observed, what the country really needed was not elected "leaders: but "rulers" -- intelligent autocrats who would "rule and rule well" ... He anticipated that mental tests would produce a "caste system as rigid as that of India," on the one hand depriving "at least 25 percent" of citizens of the ballot while, on the other, returning "the burden and responsibility of government where it belongs ... to the rule of ... the real and total aristocracy." This caste system, Cutten emphasized, would not depend on any accident of birth, wealth, or favor, however; it would have a "rational and just basis." (p. 105)

And be clear on this: education was NOT viewed as an opportunity for the development of the individual's potential but rather as a mechanism for matching persons to the role for which they had been "conditioned by...nature." (p. 108) "A scientifically structured educational system was to be the servant of a scientifically structured society... giving to each "a fitting place in the state" while insuring social harmony, especially among those whose place would not be enviable." (p. 109)

The obsession with mental tests, however, left a scientific legacy that would continue to exert substantial influence on the field of education -- the belief that "intelligence" was biologically innate and hence unchangeable, that is growth ended at biological maturity, that it could be directly assessed by performance on a series of tricky little problems that must be solved as rapidly as possible, and that this assessment determined not only what one did know but also what one could know. This reluctance to explore the modifiability and diverseness of intellectual accomplishment has been partly responsible for the quasi- eugenic role that education still plays, channeling individuals, often from an early age, toward futures determined appropriate for them by the results of an IQ test. (p. 110)

The logical extension of the scientific assessment of differential ability occurred in Nazi Germany. Serving science meant excluding (exterminating) those "unfit" or "unworthy" of life. "The Nazis ... merely designed and implemented the mechanisms to attain the goals proclaimed scientifically necessary by the geneticists and anthropologists." (p. 129)

The Holocaust has commonly been conceived of as a revolt against reason, the ultimate example of the "irrational," designed and executed by the pathologically insane. But if reason was the object of the revolt, it was also the chief ally, a dialectic so monstrously rational that it could override all the traditional bounds of morality. The Holocaust was not so much the overthrow of reason as its triumph over morality. It allowed a scientific ultrarationality -- what Hitler called "ice cold logic" -- to provide murder with rational justification. (p. 133)

Whether murder or simple social inequity, the aim of this "scientific racism" is forever the same: the

explanation of political inequality with reference to biological inequality. To these thinkers, it is idiotic or paradoxical to think that all individuals are created equal when biology clearly indicates that "equality" ain't so.

Because eugenics had so often been intertwined with pseudoscientific assertions about race and nationality, the inaccuracy -- indeed, the plain foolishness -- of many of these claims became the principal focus of criticism, leaving the underlying assumptions unchallenged. The real problem of eugenics was not the commission of scientific errors, though these were certainly committed in abundance. The attention given to empirical questions largely overshadowed consideration of the more important error, however, the conviction the sociomoral tenets could appropriately be derived from science. Concepts of liberty, justice and equal rights are neither determined nor justified by scientific results but flow from agreements among human beings based on constitutional, religious and moral principles. The intrusion of science into this domain only impeded the Enlightenment's promise to free individuals from the coercive power of church and superstition, moving them out of the religious frying pan and into the scientific fire. Of course, this does not suggest that science has no role in social policy, but it is not in defining goals or rights, it is in developing techniques and methods for achieving principles that have been defined elsewhere.

Tucker details the sorry history of Galton's legacy in this century: the battles over immigration in the 20s, the growth of Nazi ideology both in Germany and here in the U.S., the battles over school integration and the Civil Rights Movement, and the apparently scientific contributions of Arthur Jensen.

This review is already far too long. Suffice it to say that Tucker does a thorough job of applying the insight revealed by his exposure of the racist assumption -- science can prove moral/political inferiority. Science cannot prove anything of the sort and attempts to use science in this way are, as is appropriate for this board, fraudulent.

Tucker touches on some fascinating characters in the history of scientific racism: Frank C. McGurk, Henry Garrett, Carleton Putnam, Wesley C. George, Robert E. Kuttner, Ernst van den Haag, William B. Shockley, Hans Eysenck, Raymond B. Cattell, Roger Pearson, and, of course, Arthur Jensen. These are men whose names and works should be identified.

The quote from Jefferson regarding the distinction between science and morality for blacks or the poor or anyone else is elegant: "whatever be their degree of talents, it is no measure of their rights." Amen.

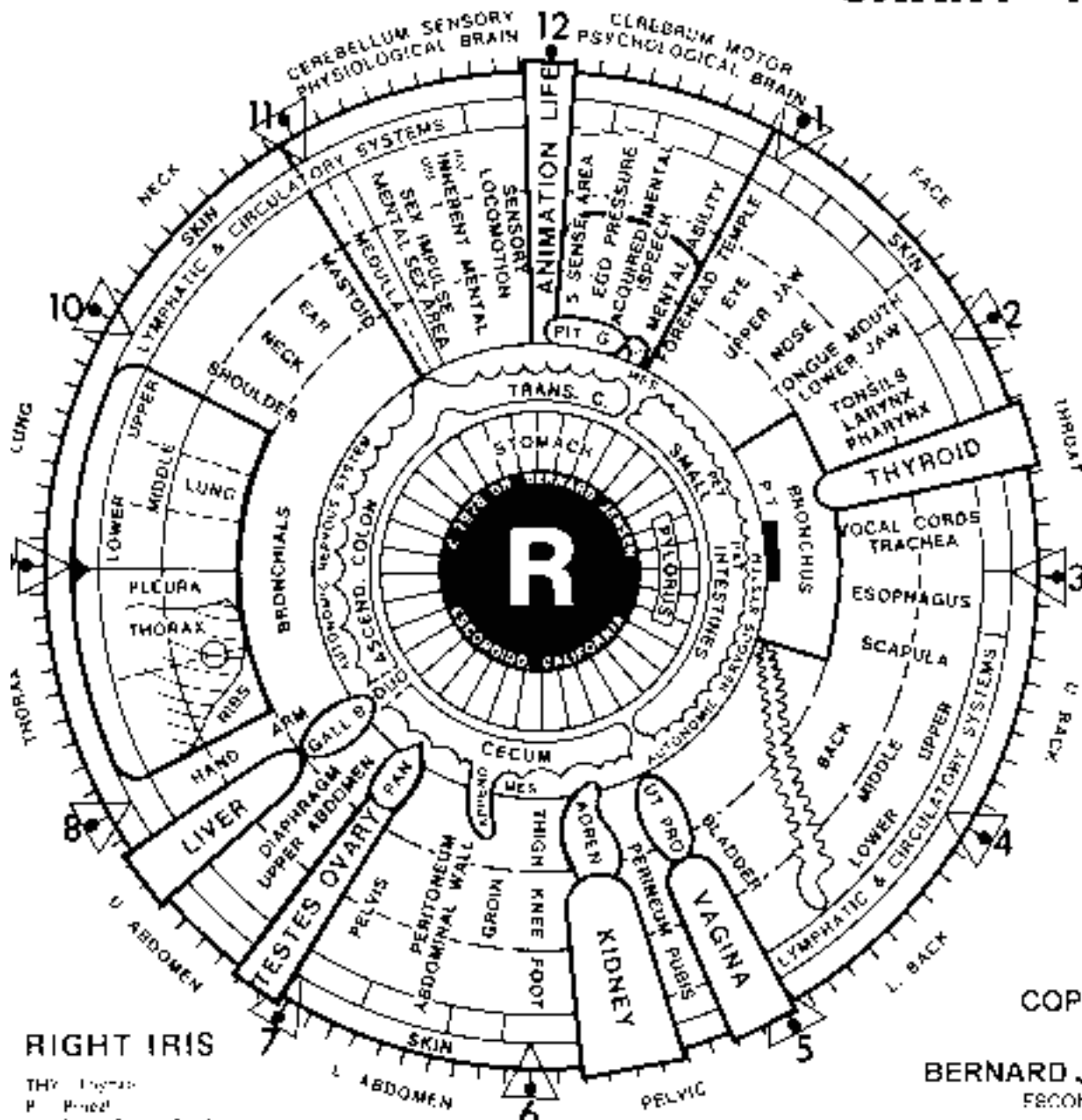
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E-mail: ACH13@ALBNYVMS; ACH13@UACSC1.Albany.edu

Phone: (518) 442 - 4678; FAX: (518) 442 - 4936

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CHART TO



RIGHT IRIS

- THY - Thyroid
- P - Pituitary
- Pey Pat - Peyer's Patches
- Mes - Mesentery
- Hal - Hal at anterior
- P.T - Peyer's Tonsils

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jamais vu

Jamais vu is the contrary of [déjà vu](#). In *jamais vu*, an experience feels like it's the first time, even though the experience is a familiar one. *Jamais vu* occurs in certain types of amnesia and epilepsy.

Last updated 12/30/01

[Januarius](#)

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reader comments:

karma

17 Dec 2000

*Like others I was a bit dismayed by your take on karma in the **Skeptic's Dictionary**, since apart from your unwillingness to accept rebirth (which is a reasonable doubt of course, however unknown to the ancients or some modern Buddhists), it coincides well with the Buddhist critique of the Hindu version of karma, but you weren't aware of that. The Buddha was deeply averse to the use of the theory of karma for creating castes, and insisted that all humans have equal capacity for attaining liberation, in part by at first accepting karma, then finally seeing its lack of inherent existence. The worst karmas are called inveterate negative propensities, and it takes a great deal of insight and discipline to get free of them. The worst of all of these is the deep-rooted grasping after the belief that individuals exist inherently without interconnection to the world, and it is on this delusion that karma rides. Buddhists are not saying karma is a law of nature, only that it is a consequence of our neuroses.*

The Buddha also argued that the vast majority of our karma is negative, and being born human is a precious opportunity not to be wasted with selfishness when a much better life is possible by developing compassion and other good qualities, which in his view were simply more realistic than our primordial delusions. Upon coming across a homeless person on the street, instead of feeling superior a Buddhist would try to look through that person's eyes and know that only a freak chance of timing differentiates the ripening of that homeless person's karma and one's own. And the Buddhist would also reflect that our karma is in large part collective, so to ignore that person's plight is to ignore one's own pain.

I am not trying to claim the theory is true, but that its social consequences are not as obvious as you assume. Certainly Buddhist societies are not above distorting their own doctrines in order to maintain social control, but this is not the fault of the Buddha or the doctrine. On the other hand, Buddhist monasteries are often wonderfully anarchical and democratic in structure, and their precepts enforce a communal way of life that puts the best social theories of the West to shame.

Even within the Buddhist tradition there is a spectrum of "strong" to "weak" versions of the karma. For instance, it seems self-evident dissipated actions like drinking yourself silly will have some deleterious effects on your life. To be

sure, the ancient traditions go way too far for us moderns in specifying particular karmic results to actions. But they also developed a detailed description of the many nuanced stages of karma that are at the least philosophically interesting. For instance, contrary to one of your assertions, according to doctrine karmic results do not exactly correspond to their causes. The karma tends to ripen and magnify in the continuum (like Raskolnikov's guilt in Crime and Punishment) but can be mitigated even when it is too late to prevent it from coming to fruition. Karma in this sense can be understood as a complex information process, a theory of memory that becomes extremely subtle when subjected to Buddhist philosophical debate, which often happens.

On another subject, you might be interested in the Buddha's own prescription for a healthy skeptical attitude, instructions he gave to the people of the village of Kalama when they asked him how to evaluate philosophy:

Kalama Sutta

1.Do not believe just because it is a tradition maintained by oral repetition. 2.Do not believe just because it is an unbroken succession of practice. 3.Do not believe merely because it is hearsay. 4.Do not believe just because it is in the scriptures. 5.Do not believe just because it fits with one's point of view. 6.Do not believe just because it is correct on the ground of metaphysical theories. 7.Do not believe just because it appeals to one's consideration. 8.Do not believe just because it agrees with one's opinions and theories. 9.Do not believe just because the speaker appears believable. 10.Do not believe just because the speaker is our teacher. Kalamas, whenever you realize by yourselves that these are unwholesome, harmful or are condemned by wise people, and whoever fully undertake or observe them, they will lead to uselessness or suffering, you should abandon them. Kalamas, whenever you realize by yourselves that these are wholesome, unwharmful or are admired by wise people, and whoever fully undertake or observe them, they will lead to usefulness or happiness, you should undertake them.

(lifted from http://www.mahasati.org/library/kalama_sutta.shtml)

All Buddhists worth their salt try to take these words to heart. School children in Thailand are forced to memorize them. In one unfortunate incident however, a Thai friend of mine was nearly thrown out of school for asking "why should we believe this then?" She stopped being Buddhist for 20 years, but returned to it later in life.

Alex Turner
University of Wisconsin -- Madison

07 Mar 1998

Your suggestion that the law of karma is "a law for sheep" hits the mark. How has it come to be a central tenet of a major religion? My suspicion has long been that the religious law of karma evolved as the perfect cover for a politically oppressive social system. Although I have not been able to trace the belief in karma to its roots (the old Hindu texts seem to accept karma as a given), it strikes me as a too-convenient justification for India's rigidly stratified caste system. Why wouldn't the elite support such a belief? They are who they are in society by virtue of their spiritual superiority.

"I am a Brahmin. This is my karma. You are an untouchable. That is your karma. Deal with it." This belief also works nicely for the prosperous therapy addict in suppressing his guilt over poverty in the third world.

Karma is the yoke worn by India's poor. Karma (and reincarnation) convince the poor that their lot in this life is a function of their sins in the last. If they accept it meekly, perhaps they'll do better in the next. Is it any wonder that over the centuries India saw so little progress, socially or economically, until the British arrived? And why it still remains largely impoverished and undereducated? Judeo-Christianity, on the other hand, may promise eternal bliss, and some may have used that belief to keep the masses in their place, but in practice its teleological view also suggests that if you only go around once in life, you've got to go for all the gusto you can get. One need only compare the social and economic differences between the two cultures to see how these beliefs work themselves out in practice.

Tom Sullivan

reply: Somehow, I don't think it's that simple. Western materialism developed in spite of Christianity, not because of it. As for the British imperialists in India, the only good I can see that came of that was the gin and tonic.

25 Feb 1998

Although I would classify myself as a skeptic and a devoted follower (?) of your dictionary, I have a suggestion to make about your recent entry on karma. The variety of differing views on karma make it incredibly hard to justify your overview. For example, Buddhists have a theory of karma which differs in some important respects from the theory you present.

For many Buddhists, karma becomes an ethical theory rather than one strictly of causation: "[Buddha's] great innovation was to say that the moral quality of an act lies in the intention behind it." (R. Gombrich, Theravada Buddhism)
Karma is the psychological seed planted by an action which results in a tendency to act a certain way in the future.

This might be quibbling a bit and may be as screwy an idea as the cause and effect karma you present, but I think it ought to be addressed in some fashion.

B.L.

reply: If I understand you correctly, Gombrich claims that for Buddha karma is a process whereby purifying our intentions affects our behavior so that we tend to become as we intend and act. Focusing on intentions as both the main factor in morality and in effecting future behavior seems in harmony with traditional Christian morality. There doesn't seem to be anything particularly untoward with this notion. Yet, as Fr Becker used to say, "the road to Hell is paved with good intentions." Does Gombrich deny that Buddha maintained that one's intentions in this life will have an effect on what one intends in some future life? Does he deny that Buddha maintained that the evil which befalls a person in this life is due to some evil intentions one had in a past life?



[karma](#)

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reader comments:

kirlian photography

18 Jun 1999

*I am aware of 2 errors of fact in your **Skeptic's Dictionary**.*

The first concerns your skeptical criticism of the Rorschach Inkblot. You criticize the putative scientific status of the Rorschach because the scientific evidence for its validity is based as it must be on correlation alone. You compare this to the efficacy of interpreting dreams. In point of fact the Rorschach has a more immediate source of validity: clinical usefulness. It is in fact a powerful tool in properly trained hands, and your skeptical criticisms amount to nothing more than "character assassination", that is, you have neither proven it to be useless or invalid, nor have you proved to be invalid the claims of those who find it useful and valid. Therefore, I consider your propositions regarding the inkblot to be errors of fact, in that they are speculation posing as proof.

reply: I don't criticize the ink blot test because the evidence for its validity rests on correlation alone. I criticize it because it is too subjective and its application and validation rests completely with the therapist's "insight" and intuition. As such, it is no different from making a diagnosis based on conversations with someone.

The attempt to standardize a projective test is akin to what Freud did in his *Interpretation of Dreams*. There is no objective set of rules for what either the ink blots or dreams mean.

I never claimed the ink blot test to be useless. A good therapist ought to be able to use *any* interaction with the patient to some purposeful and useful end.

I think, however, that you, like many therapists, don't know the difference between a statement of fact and an opinion.

The second error of fact is more egregious. You claim that the images seen on Kirlian photographs are due to "moisture" emanating from the object. Again you have not studied your subject in enough depth to offer better than speculative criticism. The moisture effect is your theory, nothing more, and it is disproved by two observations: first, that aura's have been captured from objects that were bone dry, such as stone or metal, and second, that if the

photographic emulsion is separated from the object by a thin layer of glass, the aura can still be detected even when it is impossible for moisture to have penetrated the glass. Finally, you are guilty of bad faith, because you essentially imply that persons reporting such things as phantom half leaves are either so foolish as to conduct the experiment sloppily so as to confound the results with the effects on which you speculate, or else that they are liars who misrepresent their technique. From what I have seen the people conducting both Kirlian photography research and those doing research on the Rorschach are working harder and more intelligently, and certainly with more good faith, than what you have done.

reply: Apparently, you have a difficult time reading. I claim that the "auras" in Kirlian photographs can be due to several things: pressure, electrical grounding, humidity, temperature, changes in moisture, barometric pressure, and voltage.

Moisture left behind by a section of a leaf that has been sliced accounts for the appearance of "phantom" sections of the leaf in Kirlian photographs. Moisture is not what is photographed. Electrical discharge is what is photographed.

I haven't heard anyone being accused of "bad faith" since my college days when existentialism was the rage. I don't doubt that your researchers work hard, nor do I challenge their intelligence. Whether they have good faith or bad faith, I can't say. However, I think your critical comments demonstrate the uselessness of such expressions.

21 Mar 1998

According to an article in Aerospace America, Kirlian methods can be used to achieve the same results as nuclear magnetic resonance. Just in case you want to explore: Lerner, Eric. "Kirlian Photos Find Hidden Flaws." Aerospace America, Vol. 24, pg. 11-12. Aug. 1986.

Julia Smith

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[SkepDic.com](http://skepdic.com)

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reader comments:

channeling & Ramtha

03 May 2002

Hi Robert, I have just gone to your site for the first time and was really amazed by your opinion of Ramtha and JZ Knight. I am sure I am not the first to say this... but you have got this entire situation completely incorrect.... although I will say that I don't doubt that for you it IS correct. Many many tests have been done on JZ Knight from skeptics, and I have seen that all tests done have proved that there appears to be a phenomenon happening. Haven't you seen this too??? I would like to assume that you have looked into this far enough, prior to such judgment, to know already of the scientific data that has been produced.

reply: There certainly does appear to be a phenomenon happening, but I don't think gullibility needs a scientific explanation.

Apart from this, I have noticed that you make some very large sweeping generalizations regarding her (JZ Knight) intent with the Ramtha existence. You say it is about fame and fortune.... and then you say that she only has a "few thousand followers". I question you then on the fame that you mean?? It seems to me that you have Ramtha's point of view so very incorrect. Afterall..... if the words that are spoken help people, then why is it so bad?

reply: The words aren't bad. The lie that they issue from an ancient spirit warrior from Atlantis is bad.

Do you judge every way of thinking with the same anger?

reply: Anger? How could I be angry at people who keep me in stitches?

I know that Ramtha is a very real entity and I have channeled him too!! Oh dear, won't that confuse you!!!!

reply: I don't think I'm the one who is confused, my dear.

The reality is, at the end of the day, that what you focus on DOES create your personal reality!!!! Don't take that away from other humans, just because YOU don't believe it to be so. Ramtha is trying to get that message across through JZ

Knight. The information is HIS knowledge and truth, NOT hers. HE speaks through HER..... don't you get it!!!

reply: What I get is that this notion that one creates one's own reality and truth is a dangerous delusion.

Anyway.... what I want to know is.... what do YOU believe in????? No skeptic ever seems to write back to me..... but stills proceeds to judge others!! Please write back.... I would love to hear your point of view.....

**Megan Carmody
(Australia)**

reply: See my [FAQ](#) page if you are really interested in what I believe in. Furthermore, I don't know what scientific test there is to determine whether a 25,000-year-old spirit has invaded the body of a Tacoma woman in her kitchen.

Megan replies:

Firstly Bob, Ramtha appeared to her, he didn't "invade" her as you say. I am not here to "convince" you, just trying to stop your incorrect judgment of her on the internet. Ramtha has indeed existed [?] for a "long" time, but that shouldn't seem so impossible to you. Why do humans think that they know everything about the entire universe? The truth is, that you don't know the truth really. What makes you really think that Ramtha is not an entity? Did you know that energy and matter are the same thing? Did you know that different energies can combine??? If you did a basic physics course you would better understand the meta-physical aspects of life. Try reading Barbara Brennan's book on "Hands of Light". She was a nuclear physicist for NASA who opened up her own school of healing. If you are "really" trying to find out the "truth" you would read her book. Something tells me you may not bother. Oh well.

reply: No, I don't claim to know everything, though I seem to appear that way to people who disagree with me. Is it possible that ancient spirits are using humans to convey bits of trivia that pass for wisdom these days? Sure. Is it probable. No.

I must admit that I don't see the connection between channeling and physics. I have taken a basic physics course and I have studied metaphysics but your claims about matter and energy, and combining energies, leaves me nonplussed.

Barbara Brennan is mentioned (not too highly) in my entry on [intuitives](#). She may have been a nuclear physicist for NASA at one time, but she is now a New Age [energy](#) healer. She may think there is some connection between nuclear energy and the metaphysical energies she thinks permeate

our organs, but to most of us with some understanding of physics and medicine, she's just another New Age quack. I've given her "Hands of Light" more time than it deserves.

22 Aug 2000

I noticed your emotional opinions on your web site and in the interest of objective scientific truth I am submitting the following correction of fact.

reply: Never let it be said that I stood in the way of "objective scientific truth." Blast away, O enlightened one!

You claim that J.Z. Knight "pretends" to go into a trance to channel Ramtha. Stanford Research Institute in conjunction with leading scientific authorities have established with extensive scientific and empirical evaluation that J.Z. Knight does, in fact, go into a deep trance provably engaging her autonomic nervous system to an astonishing extent, i.e. deeper than any yogi on nails, hypnotist, or prevailing New Age avatar, when she is channeling Ramtha.

reply: Wow! The Stanford Research Institute! The very place that Hal Puthoff, Russell Targ and Ingo Swann, parascientists extraordinaire emerged from? For more info on this illustrious hall of "objective science" see the following:

[Skeptic's Dictionary: mass media bunk 2](#)

[Skeptic's Dictionary: Uri Geller](#)

[Skeptic's Dictionary: remote viewing](#)

Furthermore, the measurable electromagnetic field of the Earth itself spikes upon the occurrence of the aforesaid channeling.

reply: You wouldn't mind producing proof of this extraordinary claim, would you?

So we have scientifically undisputable research that proves that J.Z. does, in fact, go into trance when she is channeling.

reply: Maybe you do, but the rest of us don't.

This leads to the obvious question of whether your highly prized "skepticism" is based upon scientifically provable fact or personal, emotional, ulterior motive.

reply: That's a false dilemma!

Such as, why are you so emotionally insecure about an unknown and challenging reality?

reply: That's a loaded question!

I dare you to cross the line into empirical, scientific evidence. Your intellectualism can explain anything to protect your belief and social programming, but when it comes down to real science where do you stand?

Expecting a reply, Bruce Weiskotten

reply: Geez, Bruce. I don't know what to say.

24 Apr 2000

This is pure FUD (fear, uncertainty and doubt) and not worthy of the site: (from Ramtha page)

One might say, then, that it would be good to leave the Ramthas of the world alone. After all, they're helping people, even if they are frauds. As long as they're not hurting anyone, let them be. Even if they are hurting people, the victims are adults who freely choose to be exploited and abused. Don't we have the right to be victims if we so choose?! Sometimes. But sometimes those adults bring their children. Sometimes those adults are not as free as the rest of us. Sometimes a Ramtha takes more than your money. No one should ever forget the reverend Jim Jones and the mass suicide in 1978 of more than 900 cultists in Jonestown, Guyana. Not that Ms. Knight is a threat to her followers' lives, only to their dignity.

This is appalling rhetoric and does the skeptic cause no good at all.

reply: I didn't know there was a "skeptic cause" or that I was supposed to be doing it some good. Sorry. I also don't think the rhetoric is as appalling as the recent events in [Uganda](#) where hundreds were murdered, including many children, over some miscalculated end-of-the-world prophecy by some defrocked priest who thinks the Virgin Mary is sending him messages. Frauds and deluded people can be dangerous to your health.

I am reminded of the di-hydrogen monoxide page as a kind of reductio ad absurdum of this argument. Did you know that people have died by inhaling di-hydrogen monoxide [water], but it is still legal to SELL it ??

reply: I'm sure this is of interest to somebody and that there is a connection between this paragraph and your opening sentence but don't expect me to

waste any time trying to figure out what your point might be.

The crap about protecting the children is the same argument used to justify installing rigorous censorship on the same medium (the internet) you are using to broadcast your messages.

reply: So that's what this about...censorship of pornography. Why didn't you just say so? Never say you are concerned about some fraud or delusional person harming children because that gives fuel to those who want to ban pornography from the Internet!

Oh yeah, the Ramtha crap pisses me off too, but you are stooping far to low here.

Peter Nicol

reply: I admit I am stooping pretty low to respond to you.

20 May 1999

Hi! I just read your thoughts on Ramtha & J.Z. Knight.

You sure have a lot of opinions! And it's great that you exercise them so well. However, I don't really get your idea of Ramtha's school being a "cult". I happen to find his & many others who teach the same ideas as beautiful entities who have much to teach us about life and ourselves.

What do you believe in? Most religions started out small. Does that make the huge religions today cults? Everything, everything can be seen as a form of brain washing. Even your most factual scientific findings. Things constantly change, new ideas are not insanities.

Niki Shay

reply: For some of my beliefs, see my [FAQ](#) and the other 338+ pages I've posted.

The old saw is that a delusion held by one person is a mental illness, held by several is a cult and held by many is a religion.

I just checked out Ramtha's "lofty thought of the day." Here it is: *What part of you do I love? The part that goes on in the face of all that says you shouldn't.*

Isn't that precious! I suppose if you find such drivel to be enlightening, you can see the universe in a grain of sand or Jesus in the clouds, or your innermost self in an inkblot.

9 Jun 1999

I have observed [Barbara Marciniak](#), [Lia Light](#) and others over the last 5 years or so because of my wife's involvement in the new age movement. And they are a bunch of money grubbing phonies. They add to their "message" when they need to move on. And it gets so absolutely incredible as to defy anyone believing it. But, unfortunately, there are a lot of lost "souls" out there searching for something better than their own drab existence. They are making money hand over fist and seem to have an innate ability to seek out those with "disposable" income. They continually have you buy books, oils, crystals, charts, drawing, and, of course, you must have a "reading" every month or so. I know one woman who, I would estimate, has spent over \$50,000 over her life on readings. Why?? To get an answer that matches what is in her mind. And no one ever has. You are right on with your site and information. Keep up the good work and if you want any specifics as to what these "channellers" are up to drop me a note.

Tony L.

reply: I think we can guess what they are up to.

28 Apr 1998

*I just checked out your definition of channeling in your **Skeptic's Dictionary** and was pleased to find that I clearly don't fit. Neither do most of the channels I know. Clearly you have done your research only among the largest hucksters in the field. Most channelers are decent thoughtful folks and good citizens. Therefore, I am inviting you (and it is a public list) to spend some time on channeling@intuition.org. I think you will be pleasantly surprised.*

Eileen H. Kramer

reply: The site you refer to claims that it is a "mailing list for those who want to learn more about the voices, visions, inspiration, and thoughts inside their heads that come from some place other than their mundane self. It is a list for people who speak to the dead, aliens, elemental and nature spirits, angels, other higher beings, and their higher selves." If you want to define channeling in such broad terms, then you will have to read my entries on [angels](#), [alien abductions](#), [the Celestine prophecy](#), [God](#), [spirits](#), and [theosophy](#), among others, as well as my comments on [James Van Praagh](#) and [Budd Hopkins](#). You may not want to associate with [Ramtha](#), but some of the greatest hucksters who have ever lived have been decent thoughtful folk and good citizens, e.g., [Edgar Cayce](#).

7 Aug 1998

I noticed a paragraph in your section on "Ramtha" regarding the classic New-Agean "people only use 10% of their brain" theory and that you weren't quite sure what it truly meant. In the past few years, this has been thrown by the wayside by "real" psychologists for the new theory that "people only use 10% of their brain for cognitive processing. The other 90% is to do stuff like breathe, see, digest, control muscles, etc." Newer psychology texts in college usually have this somewhere near the beginning of the "cognitive thought" chapters. If any of these New Agers find out how to use 100% of their brain for cognitive reasoning, I'd be interested to see what happens to the rest of their body.

Derek Glidden



[channeling](#)

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reader comments:

Large Group Awareness Training

20 Nov 2000

You can add [Dale Carnegie](#) classes to this distinguished list. I was "given the opportunity" to attend a Dale Carnegie program at the expense of the company I was working for because it was highly recommended by the secretary who had previously taken it.

Being the logical minded engineer that I am I just couldn't understand and get comfortable with the strange goings on in this class and gave up after attending 6 of the 12 scheduled three-hour long classes. I think if I had read your article first I might have smelled this one out before attending.

It was quite similar to the others you describe, complete with perpetually smiling, always (artificially) cheerful group leaders. They actually did lead us in some short positive cheer at the end of each session that we were supposed to shout happily, several times, as if we really meant it.

The activities always consisted of spilling your guts, with some of your most intimate thoughts as directed in the assignment, in front of the nearly 100 other people in the room. All dutifully responded with rousing applause to make you feel good about what you had just done though I mostly just felt embarrassed. I think this portion of the program was designed to break you emotionally so you will more readily accept the 'positive ideas' the instructors want to pour into your head.

They also frequently advertised to their captive audience that there are more classes and plenty of books by the founder available for sale and suggested you buy more of each to get the fullest benefit from the course. It was only slightly less than high pressure.

There is one additional twist on the Dale Carnegie course that seems to make it different from the others. Part of the exercises and emphasis in the training is to pretend you are very interested in other people so you can impress and manipulate them. Clearly it is not advertised this way but they call it a great sales tool. This class is geared toward sales people.

You are taught that people love to talk about themselves and you should help them do that. If you can learn to remember things about them, especially the small details, you can use that to your advantage and hook them into buying more of what you have to offer. If you can sell them things that they don't need in order to enrich yourself then you are a great sales person! That was

essentially the gist of the book by the founder too. I found it absolutely disgusting.

The basic mantra of the course was "You can't live a happy and fulfilling life unless you have the Dale Carnegie secrets and use them daily in your personal life and your career." What finally got to me was when they used that statement to insult my wife and our personal relationship. We have a far better marriage than most from what I've heard so, after feeling insulted by that sentiment one too many times, I walked away.

Only an empty mind could be convinced that these total strangers can completely change and improve their close, personal relationships by talking to them one hundred at a time. Making phonies is their game. I just couldn't be someone I'm not.

Karl Black

reply: I read on their web site that they have eleven programs. You probably took the wrong one, Karl. Anyway, you'll probably hear from their lawyer telling you not to use 'Dale Carnegie' as a noun and to remember to put the ® in Dale Carnegie Training® and the ™ in Carnegie Coach™, right next to the \$\$\$.

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Last updated 11/20/02

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reader comments:

Rama (Frederick Lenz)

19 May 1998

My name is Pam, I was married to Rama, known to me as Fred or Freddy, as his father called him. He was just a guy in his 20's with long-term acne and braces when I met him. Making dulcimers and coloured candles for head shops.....but reflective and intense....strangely disconnected to anything happening on this plane. We wed, moved to Storrs, Connecticut where he was majoring in English, got divorced about two years later, the rest is history. Believe it or not, he wanted to be celibate for purification purposes. "Give me a break." He stayed with [Sri Chinmoy](#) for enough time to see that that kind of a "gig" was very appealing. E.g., develop a powerful mystique, get a good promotion agent and a theme, bingo, you're self supported, wined, dined and sexually serviced. But, still it was too bad he went the way he did. I always felt he was just a lonely little boy, just like when he was growing up. Neglected and misunderstood and crying out for attention.

He definitely was one of the stranger men in my life.

Pam Broiles



reader comments:

ley lines

15 Apr 1998

If all the cities of the Earth were to follow the example of Seattle and neutralize negative energies while amplifying the positive, don't we run the risk of blowing the world apart because of all the resulting mutually repellant positive charges?

Just a thought.

Karl Jennings

reply: Maybe you have discovered the real meaning of the power of positive thinking.

23 Nov 2000

Karl Jennings' comment raised a smile, but be careful. If you equate positive energy and positive charge, you fall into the same trap as all those New Age people who distort quantum mechanics to mean precisely what they want it to mean. In fact, positive energy has no meaning unless you define a system, when positive energy becomes energy going into that system (and negative energy energy coming out, clearly). A little physics goes a long way.

Nick Kiddle

reply: I'm sure Karl will get a charge out of your negative comments.





reader comments:

polygraph

22 Nov 1999

I'm sure you don't like hearing this stuff, but I did take a lie detector test once (back in my less idealistic days, when I was applying for a summer internship at the National Security Agency) and they caught me lying in response to one of my interview questions. Before that, I was convinced that lie detectors couldn't possibly work reliably, and I was completely blindsided when they said they knew I had been lying.

(The question was about illegal activity, and at the time I was 19, and had gone to visit a 17-year-old girl that I had met on the Internet, and we, um, went to "second base". Due to the Christian church's powerful influence over laws governing such matters in the U.S., I wasn't sure if that was legal, although I have since found out that it probably was.)

*So I agree that polygraphs are not *reliable*, because they don't work on some people and others can learn how to fool them, but I would disagree with your statement that they are "no better than hypnosis".*

I did see a demonstration in a science museum once where one participant would pick a number from 1 to 10 and the other participant would ask, "Is it 1?", "Is it 2?", etc. and the first participant would always answer "No". It didn't work on everybody, but it did better than random guessing. That seems like a pretty well-controlled experiment for a science museum, in keeping with the principles of "Seeing is believing" that most skeptics would probably support. (name withheld by request)

reply: If there were not experiences like yours, I doubt if anyone would believe in the reliability of the polygraph. It is easy to find confirmation for the polygraph thesis, but the polygraph's failures demonstrate the reasonableness of not allowing polygraph results as evidence in our courtrooms. The courts are equally reasonable in not allowing as evidence any testimony first gained by using hypnosis, which has also been shown to be unreliable.

17 Sep 1999

I have worked for a law enforcement agency for over 25 yrs. Based on my

observations, I would never voluntarily submit to a polygraph examination. I've seen too many cases where the suspect showed "guilty knowledge" (while denying being involved in the crime) on the poly, and was subsequently cleared through further investigation.

That said, I must admit that there have been positive results from polygraph examinations. During the pre-examination interview (actually a form of interrogation), while the examiner is attempting to get the suspect to confirm in clear, unambiguous language what their story (alibi, etc) is. If the examiner is persuasive enough to convince them that the machine will detect untruths in their statement, many suspects will end up confessing to the crime without the test. In the same manner, during the post examination interviews other suspects, confronted with "evidence" of their untruthfulness, will confess to the examiner. While my attitude may be incorrect, I see little problem with prosecuting folks who voluntarily confess during a voluntary polygraph exam which cannot be used in court.

Perhaps this is a function of our Western Judeo-Christian culture ("Confession is good for the soul," and "Always tell the truth") that is the cause (providing a blame-free method) of the confessions. I'm not familiar (anecdotally) with any of the confessions gathered this way being found to have been false. I also wonder if someone raised in another culture that doesn't value truth and openness (e.g. USSR or possibly Japan) would show any of the reported physiological signs of lying.

In that I am still employed by the police dept (even though my thoughts are very [probably too] well known), I'd appreciate it if my name is withheld.

15 Sep 1999

Have you seen the article by Tim Beardsley entitled "[Truth or Consequences](#)" in the October [Scientific American](#)? It seems that the FBI wants to search for spies by giving "lie detector" tests to scientists at Los Alamos.

At the top of page 24, we read

... the most notorious spy of recent years, Aldrich Ames, passed routine polygraph exams as an employee of the Central Intelligence Agency, as did another former CIA employee and convicted spy, Harold J. Nicholson.

That turns out not to be evidence of polygraph inaccuracy, however, because near the end of the article, former FBI counterintelligence official, Edward Curran,

... hotly denies that the polygraph failed to raise suspicions

about Ames: the polygrapher in that case made errors, Curran maintains, because subsequent examination of Ames's polygraph charts shows evidence of deceptiveness.

Yeah, right; and Dixon predicted Kennedy's assassination, too. This is clearly an ad hoc hypothesis, especially in light of another thing that the article points out:

... when polygraphs are used to test suspects for involvement in specific crimes, the tests rate as deceptive more than 40 percent of subjects who are later positively cleared. Because examiners know they cannot fail 40 percent of those being screened for a sensitive post, they set the hurdles for deceptiveness higher.

It sounds to me like they "set the hurdles for deceptiveness" to get the results that they're looking for.

Bill Seymour

reply: I read an interview with Ames. He claims he was able to beat the machine by doing such things as squeezing his toes in tight. The unreliability of the device is well-known.

The Associated Press reported on a Sept. 14th meeting between more than a dozen researchers at Lawrence Livermore National Laboratory and a panel from the Energy Department. The scientists were said to have "vented their anger" at the government's plan to force top-security researchers to take lie detector tests in an effort to catch spies. Those who thought that what Bill Clinton lacks in moral character he makes up for in intelligence may have to reassess their opinion. This attempt to catch spies is inane.

The scientists noted that the results of a polygraph are not accepted in court and their value has been debated from the moment of their inception. Thomas Thomson, who has been designing weapons for more than 30 years, said:

The question is not about the veracity of polygraph screening-- they are well known to be useless for that purpose. The question is, what dissenting views are they now afraid of? It is a truism that institutions only worry about heresy when they have begun to rot from within. Just what rot is this administration trying to hide from the Congress and the American people?

Another scientist warned that the tests will make it harder to recruit and

retain talented scientists.

In case you haven't heard, the Clinton Administration has ordered the polygraph tests, which will pose these four questions:

- 1. Have you committed espionage?**
- 2. Have you committed sabotage or terrorism?**
- 3. Have you illegally disclosed classified information?**
- 4. Have you had any unauthorized contact with any foreign intelligence service?**

If the polygrapher thinks the subject has lied about any one of these questions, the subject will have to take "a more complex text" and be investigated by the FBI.

This sounds swell and is likely to attract all the best minds of our generation to want to work for the government. Guilty until proven innocent! The inmates have taken over the asylum.

I imagine Doug Williams will sell a few more copies of his manual on [How to Sting the Polygraph](#).

11 Sep 1999

Your page on the polygraph is outstanding! I have been researching the polygraph for about a year and every issue you addressed about lacking credibility is well supported.

I have my own web page at www.stopolygraph.com with my research.

Bill Roche

03 Sep 1999

While polygraph must never be absolutely relied upon for exactly the reasons outlined in your article, I have found it to be a useful tool in criminal investigation where objective questions can be formulated about the subject's own actions in a specific event. As with all tools, its limitations must be recognized. Aside from the most common use as a demonstration to the actor that he is detected, let me briefly relate an interesting case.

An adjacent row of shops found burglarized. Some clear theft (large quantity of expensive clothing) and some vandalism (beer bottle thrown into a fish tank) of a kind not normally associated with common burglary.

Ex-convict on parole for burglary identified as being parked behind the center at about 4:00 a.m. the night of the burglary. He left town (violating his parole conditions) when he learned inquiries were being made. Two young men who had been playing pool late in a shed behind the center were identified. They agreed to polygraph which showed one lied when he said he did not enter the shops in question that night but was truthful in denying that he took anything. One lied when he said he did not know who entered the shops or who took anything from them but was truthful about not entering himself. ("Lied" and "was truthful" refers to polygraph indications. Neither confessed to anything.

The ex-convict was induced to return after he decided it looked bad to run. He agreed to polygraph which showed he was truthful about knowing nothing of the burglary. (He stated he had parked behind the center to urinate.)

Months later, a very active traveling professional burglary was caught in another city and confessed to this one also (and many others) to get concurrent sentencing. He was a thorough professional who stated he kicked at a business door across town to set off the alarm to distract patrol officers, a fact that had not been known to be connected with the crime. He also never indulged in vandalism during a crime and was solely engaged in stealing the dresses.

It is reasonably certain that the pro did the burglary, and the pool player, finding the back door open, entered (drunk) and did random damage, his friend waiting outside out of fear of discovery.

My sample of polygraph experience over 12 years is not large enough to establish much more than its usefulness as a tool. But it was undeniably useful, even though results are not admissible evidence in Texas. The operators, state police employees, made no rash claims and were scrupulous and clinical in their approach. Much different from the pre-employment sort of private examiners I have known.

*It was also interesting to note that a significant number of true pedophiles who were known beyond any reasonable doubt to have engaged in intercourse with young children were able to lie about their acts without effect on polygraph, while their response to the directed control lie was normal for a lie. I have never been given a satisfactory explanation of the phenomenon. They are certainly not deluded to the point that they believe they are truthful when they answer "no" the question, "Did your penis contact any part of ****'s body?" or "Did you cause anything to penetrate ****'s vagina?"*

Terrific web site. Keep the faith (or perhaps, Keep the Doubt <g>).

Gerald Clough

05 Aug 1999

Visiting scenic if foggy Carmel-by-the-Sea on business, I found an article in the Carmel Pine Cone about the use of a voice stress analyzer by the Monterey County Sheriff's Office, in one of their criminal investigations. The article claimed that the device is a type of lie detector that is capable of 95% accuracy, evaluating yes-no answers, which may be used without the subject's knowledge (over the phone, for example). The article was completely uncritical of the claims.

Searching the Internet, I found some very interesting research conducted by the Defense Department Polygraph institute. In at least three scientific studies, the device yielded only about 50% accuracy (i.e. no better than random chance), both for detecting lying and truthfulness. Also, a lengthy article in the San Diego Union-Tribune (12/1/98) described abuses of the device by the San Diego police department, the dubious marketing practices of its manufacturer, and the shady past of the company's owner.

If you would like to see all the information I have on this matter, please let me know!

Thanks for all the good work,

Peter Nothnagle

15 Dec 1997

After reading your article, I felt you had left some very important points as to "WHY" polygraphs don't work:

- 1. People don't want to believe that someone or something can tell when they are lying!*
- 2. People don't want to be found out and exposed when they commit a crime!*
- 3. People don't want to be found out when they lie to their parents, friends, employer, the police, the government, the IRS, the courts and many others!*
- 4. People don't want to be found out when they steal from their family, friends, employer, their fellow Americans by cheating on their income tax and don't pay their fair share!*
- 5. People don't want to be found out when they commit crimes against fellow human beings or our children!!!!*
- 6. People, politicians, the Senate, the Congress, the rest of the government, and many others don't want to face their wrongdoing by being told by a simple instrument that they are lying!!!!*

reply: If these are the reasons the polygraph doesn't work, I can only guess that the reason they work is because polygraph examiners want to believe they work so they can keep their jobs.

Let face it, the only reason the polygraph was banned in 1988 was because President Reagan had suggested that many of our politicians (some in congress) should take polygraphs. It wasn't very long afterwards, that congress voted to ban the use of polygraph.

reply: You don't think it had anything to do with their being unreliable?

Their are bad and good people in this world. We certainly don't ban all humans from this earth because there are a few bad apples. Their are some good cars and some bad ones, but we certainly don't ban all vehicles. However, when it come to the word polygraph, the lie detector machine, well.....then it's another matter. So, to avoid having to tell the truth or be found out, we then created other lies to protect the lies we don't want people to know. So, we say that the polygraph can't tell a lie and doesn't work (God forbid it worked). We claim it invades our privacy and violates our rights. And, you are right... it invades our privacy because now everyone knows we have lied. It violates our rights because someone has established that we have lied and we can be held accountable.

reply: Actually, we know that sometimes the polygraph works and sometimes it doesn't. Unfortunately, we don't have any way to tell the difference when it really matters. Truth machines are as valid as truth serums: both are based on wishful thinking not evidence that they are reliable.

If the question is whether or not there are good or bad polygraph examiners...then I say yes. Let do something to weed out the bad ones with laws and professional guidelines that will ensure good polygraph results. But to ban or outlaw a procedure that it's main purpose is to establish the truth.....no, then I think there's sometime wrong with those who choose to be anti-polygraph. These types of people may be the ones that have a lot to hide and wouldn't want to be found out. If I was one of them, I wouldn't want polygraphs around either.

Bob Ferrer

Polygraph Examiner

reply: I think the question of competent and incompetent examiners is one we will have more success at than reliable and unreliable polygraph tests. Good intentions are not sufficient to warrant using the polygraph. People who rush to take a polygraph to prove their innocence are fools. Passing the test doesn't prove one's innocence. If it did, we could do away with trials altogether. People who refuse to take a polygraph may not be afraid of being caught in a lie; they may be afraid of having some machine say they are lying when they know they are telling the truth. Frankly, if I were running a business, I would not sleep any better knowing all my employees passed a polygraph test.

08 Apr 1997

My husband who has a seizure disorder has never passed a lie detector test. He worked in several jewelry stores that required all employees take periodic tests or be fired. His test results were always the same -- he told lies. What happened was the stress being tested was so great that he would have an absent seizure (nodding out) or go into a fugue state, where he was 'not here'. (His medicines can only control 80 percent of his seizures.) However, in his current job, he has a U.S. government clearance of 'Secret'. (The F.B.I. did the field work to detect his honesty.) He and I agree that lie detector tests are no measure of honesty.

Virginia Carper

28 Oct 1996

I thought this treatment of polygraph machines as "lie detectors" was pretty good. Let's face it: this is Gilligan's Island science, not real science.

You left out one interesting issue, though. How come Phil Klass, considered (by "skeptics") as "the leading UFO skeptic," puts such a pathetic credence in the things? If someone makes a claim Klass doesn't like, he wants the guy to take a "lie detector" test. Why don't the other "skeptics" wise up their colleague so he'll stop making such a fool of himself--and proving, by the way, to those who want to believe it, that the "skeptics" have no real arguments for their position? Or does he just keep doing it because he wants to cow people into submission, and not say they've had experiences he "knows" they couldn't?

Dan Clore

reply: I agree with you. Lie detector tests would not be of much value in testing alleged UFO sitings or alien abductions. I suppose the threat of such a test might scare some fabricators into owning up, but other than that I think such tests are of little interest.



[polygraph](#)

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Too Good to Be True



L.S.I. SCAN

The above mouthful of letters stands for **Laboratory for Scientific Interrogation Scientific Content Analysis**. It also stands for gullibility and wishful thinking. Its market is the same as the [Quadro Tracker](#) and the [polygraph](#): law enforcement, including the [FBI](#). L.S.I. claims that a linguistic analysis of a written statement by a suspect will reveal

--whether the subject is truthful or deceptive
--what information the subject is concealing, and --whether or not the subject was involved in the crime*

L.S.I. boasts that "while others are out searching for physical evidence, you have already solved the case--using only the subject's own words." And with SCAN you won't have to spend hours doing "stressful interviewing", doing [reverse speech analysis](#), or taking tedious courses in [neurolinguistic programming](#) or "how to read any size body language." Furthermore, anyone can learn the technique in 32 hours for only \$600.

The SCAN technique is now being used by the FBI and other federal agencies; by law enforcement agencies and military agencies throughout the U.S., Canada and Australia; by bank and insurance investigators; and by private industry.*

How does SCAN work? You begin by having the subject write a statement such as the following:

On February 22, 1989, a bundle of 10's totaling 5,000.00 dollars was found in locker #3, where my cash drawer is kept. The date stamped on the straps of the bundle is that of the 31st of January 1989, on this day as on most Tuesday I am responsible for balancing the vault. At approximately 2:00 p.m. I balanced the vault. The currency is then placed in vault locker #5. If #5 is locked then the currency is placed in any open locker and locked, if I am doing the vault then I will put it in locker #3. I did not have a chance to find someone to tell them before they went to the vault. If I placed the bundle in locker #3 then it was there from the 31'st of January until it was discovered on the 22'nd of February. I had no knowledge of the missing money. I've been with this bank for more than two years and if in that time you are unaware of my trustworthiness then I suggest we need to come to some sort of

agreement so this does not happen again.

You then solve the case by applying special scientific linguistic techniques to the statement. For example, you will learn that

People who work in banks work with "currency", "bundles", etc. They do not work with "money". People cannot spend "currency" or "bundles". They can only spend "money". When the teller referred to the "missing money", she incriminated herself.*

It's really that simple. An untrained investigator might think that more evidence would be needed before going to trial. In fact, SCAN makes trials unnecessary. Guilt or innocence is so much easier to discover by analyzing words than by the old fashioned method of having to prove guilt beyond a reasonable doubt. The [Governor of Illinois](#) would not have to wait for a complicated study before resuming the execution of those sentenced to death; he could do a SCAN for each of the 158 inmates on death row and have only the truly guilty executed.

The SCAN technique was the brainchild of Avinoam Sapir, who has done some work for the Jerusalem Police Department in Israel as a polygraph examiner and may even have been a member of the [Mossad](#). Sapir has bachelor degrees in psychology and criminology, but he picked up his linguistics on the job. "He developed the SCAN technique by conducting extensive research into verbal communication, looking into the linguistic behavior used by people in communication."*

Sapir claims to know that John Ramsey is "an abuser and knows who killed his daughter [Jon Benet]." He analyzed the CNN interview of the Ramseys done about a week after the murder of their daughter.* He knows this by Mr. Ramsey's choice of words. Sapir also claims that Magic Johnson got infected with HIV in a bisexual encounter. He knows this because Johnson never said he wasn't a bisexual, only that he wasn't a homosexual, and he said he was certain he got HIV from a woman. According to Sapir, using the word 'certain' indicates "a lack of certainty."*

I wonder if he's certain of that?

Maybe the FBI should inform the President of the United States that they have a quicker, cheaper method than the polygraph to ferret out spies and traitors in the Defense Department and related agencies.

It doesn't do much to instill faith in law enforcement when we see law enforcement officers taking classes from people they should be investigating. In their defense, law enforcers claim that things like SCAN, the polygraph and [the voice stress analyzer](#) "work." It helps them catch the bad guys because some of the bad guys are ignorant and think these things can really detect lies with some provable degree of validity. Some of the ignorant are intimidated into confessing. They "work" in the same sense that torture or extortion "work". They get the result you want some of the time.

in the name of science

Apparently, the only thing scientific about Scientific Interrogation and Scientific Content Analysis is in the names. The patterns that Mr. Sapir thinks he sees are not supported by any scientific studies. His folly has been seen before in cases like Judge Edward Jones and [personology](#). We should write our representatives and demand that before investing any taxpayer dollars in SCAN, a prospective client ought to be required to prove that he or she has a thorough understanding of [cold reading](#), [apophenia](#), [controlled studies](#), the [polygraph](#), [wishful thinking](#) and [self-deception](#).

In the private sector, it is buyer beware. If you've given up on [graphology](#) (too controversial) and [polygraphs](#) (too expensive and time consuming) yet want to spend your money a pseudoscientific Deception Detection Agency to find out if your spouse is cheating on you or whether a prospective employee is honest, you should be free to do so. They are waiting in line to take your money. Here's a couple you might try: [BPI Laboratories](#) or [Alpha Analysis](#). Happy Hunting!

[thanks to Brian L. Leininger]

further reading

"Statement Analysis Scan or Scam?," by Robert A. Shearer, *Skeptical Inquirer*, May/June 1999

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Last updated 12/30/01



[The Skeptic's Refuge](#)

[More Too Good to Be True Opportunities](#)





Pleiadians

The Pleiadians are alien beings from the star cluster in the constellation Taurus known as [The Pleiades](#). Barbara Marciniak claims that the Pleiadians chose her to be their messenger. She reveals this in her [channeled](#) book, [Bringers of the Dawn](#). According to Marciniak the message is: "If you can clear people of their personal information, they can go cosmic."

Another message is: Over 280,000 copies in print and another book, Earth, which sold 80,000 copies in its first eight weeks of publication. This message was not lost on [Lia Shapiro](#), a.k.a. Lia Light, who claims the Pleiadians are also using her as a channel. Her book from the aliens on how they have come to help us evolve is called [Comes the Awakening - Realizing the Divine Nature of Who You Are](#).

See related entries on [channeling](#), [the Ica stones](#), and [Ramtha](#).

further reading

- [The Pleiades](#)
- [UFO Billy](#)

[Korff, Kal K. *Spaceships of the Pleiades - the Billy Meier Story* \(Buffalo, N.Y.: Prometheus Books, 1995\).](#)





positive-outcome bias (*publication bias*)

Positive-outcome bias is the tendency to publish research with positive outcomes much more frequently than research with negative outcomes. Negative outcome refers to finding nothing of consequence, not to finding that something affects us negatively. Positive-outcome bias also refers to the tendency of the media to publish medical study stories with positive outcomes much more frequently than such stories with negative outcomes. The media bias may be due to the scientific journal bias, but the latter seems to be mainly due to researchers not submitting negative outcome studies for publication, rather than bias on the part of publication or peer review editors.

Positive-outcome bias is also known as the *file-drawer effect* (for the filing away of negative-outcome research).

further reading

- [Publication bias: the problem that won't go away](#) by K. Dickersin and Min YI
- [The existence of publication bias and risk factors for its occurrence](#) by KDickersin
- [Publication bias: evidence of delayed publication in a cohort study of clinical research projects](#) by Jerome M Stern and R John Simes
- [Positive-Outcome Bias and Other Limitations in the Outcome of Research Abstracts Submitted to a Scientific Meeting](#) by Michael L. Callahan, MD; Robert L. Wears, MD; Ellen J. Weber, MD; Christopher Barton, MD; Gary Young, MD
- [Scientists who do not publish trial results are "unethical"](#) by Gavin Yamey, BMJ
- [Bias against negative studies in newspaper reports of medical research](#) by Koren G, Klein N

Easterbrook PJ, Berlin JA, Gopalan R, Matthews DR. "Publication bias in clinical research," *Lancet*. 1991;337:867-872.

Moscato R, Jehle D, Ellis D, Fiorello A, Landi M. "Positive-outcome bias: comparison of emergency medicine and general medicine literatures," *Acad Emerg Med*. 1994;1:267-271.



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reader comments:

Loch Ness monster ("Nessie")

21 Sep 2000

I have read with interest the discussion on the Loch Ness events. I find the discussions interesting but believe that there may be a simpler answer. I live near Lake Ontario in New York state and have had the pleasure of spending a great deal of time there. (I have also visited Loch Ness but I digress) The wind is almost always present in this region due to the temperature differences between the lake and shore. However at dusk and dawn the wind has died down and lake is calm. One early fall evening just before sunset I was observing a wonderfully tranquil and flat lake surface. To my surprise a torrent "magically appeared" on the surface of the water about 30m offshore. The Lake churned and foamed and large ripples about .5m appeared and then turned to move away from shore. Ah the sea monster, you say! No I say a school of Salmon or Lake Trout following a smaller school of fish feeding on surface insects. As fall approaches the big fish come in closer and closer to shore, with the dropping water temperature they are able to do so with better feeding opportunities. They are also preparing to spawn. I believe the big fish followed the smaller in and all the fish scattered as the realized how close they came to the shore line. I have never seen the event again, but it easy to see how someone could have mistaken that for a humped creature who arose and then turned quickly out to sea.

Jim Baker

reply: There's just one problem. Loch Ness is not full of nutrients and as far as I know there are no large schools of fish in the lake, nor is it known as a great breeding ground.

15 Jul 2000

I think the mystery of the Loch Ness monster has been clearly solved: sightings tend to take place some years after there has been mass tree-felling. The theory relies on the fact that the trees are mainly pine and the water is cold. The trees go in the loch, become waterlogged and sink. The pine resin however seals the logs at a point at which there is still some microbial decompositional activity within what is now a log. The microbial gas creates pressure, which is eventually released, under pressure. The blackened slimy logs are now propelled to the surface and a monster is seen. Thus also accounting for foaming water and undulating movement.

Gary Mason

reply: You could be right, Gary. Then again, you could be wrong. How do the surfaced trees go back underwater? Adrian Shine thinks people have been seeing an [underwater wave](#). Maybe the underwater waves are bobbing the underwater trees. Then again, maybe not.

14 Jun 1999

Are you aware of [Richard Carter's simulation and analysis of the Loch Ness film](#) by Tim Dinsdale? His write-up is on the Legend of Nessie site. It is worth noting that Richard Carter is a Nessie-believer. The film simulation hopefully lays Dinsdale's film finally to rest, as it really does show that he merely filmed a boat under poor lighting conditions. Stills from the simulation (which involved filming a boat) very closely resemble stills from Dinsdale's film. I'm sure this comes as no surprise to you, but it is significant for two reasons: (1) It is surely the end for the one remaining piece of "evidence" the believers have been clinging onto for the last 39 years; and (2) This is the most important thing: It tells us a huge amount about false perceptions of objects on the loch.

Tim Dinsdale was a well-respected figure, with a scientific background. However, he filmed a boat, and subsequently recalled: "Unhurriedly I stopped the car and raising my binoculars, focused them carefully upon it. The object was perfectly clear and now quite large.....It lay motionless on the water, a long oval shape, a distinct mahogany colour and on the left flank a huge dark blotch could be seen, like the dapple on a cow. For some reason it reminded me of the back of an American buffalo - it had fullness of girth and stood well above the water...." [this is a quote from Dinsdale's book 'Loch Ness Monster' - the quote is featured in Witchell's 'The Loch Ness Story']

Dinsdale's experience when making this film in 1960, led him to dedicate much of his life to searching for the monster until he died in 1987. He inspired many other people to search too. For me, this is very significant. It shows the extent to which expecting to see a monster distorts perception when people visit the loch. It also says something about the reliability of recollections of events. The text in the above quote cannot be true in the light of the fact that it clearly was only a boat in the film, yet it is detailed and stated with absolute conviction - which no doubt strengthened over time [if he hadn't at first at least slightly doubted what he'd seen, it's unlikely he'd have sent out a boat and filmed it for comparison later on in the day].

The whole saga says so much about unsubstantiated eyewitness accounts. Here was an intelligent man, utterly convinced he'd seen a hump in great detail, with a film which he thought backed this belief up. However, due to the fact that we can see that he was wrong, we can discount his "sighting". If we hadn't seen the film, he would've been recorded as one of the very many convincing

eyewitnesses - who are very convincing because they have successfully and completely convinced themselves!

Mark Fox

8 Jan 1999

Your web site is wonderful! I had to write after recently viewing (and sleeping through parts) of the [Nova Loch Ness Monster gush-a-thon](#). Although Nova usually does a good job of not suffering fools lightly, they really missed the ball on this one. My wife and I (when I wasn't sleeping) were just rolling on the floor over some of the drivel they were trying to pass off as serious.

reply: I, too, thought the *Nova* piece was poorly done. I would have focused on how there is obviously no connection between intelligence and the ability to think critically. What a waste of brainpower on the part of the big brains featured as the centerpiece of the show: "Robert Rines, a lawyer trained in physics....Harold "Doc" Edgerton, the legendary MIT scientist who had invented side scan sonar and strobe photography; and Sir Peter Scott, one of Britain's most respected naturalists." The show reminded me of one of Francis Bacon's sayings: "the lame man who keeps the right road outstrips the runner who takes the wrong one. Nay it is obvious that when a man runs the wrong way, the more active and swift he is the further he will go astray."

Another thing I would have focused on is sense perception. *Nova* spent a good bit of time focusing on whether the Wilson fake photo was really a fake. Recreating the fake monster and trying to recreate the same background in a photo was insignificant, I think, compared to what might have been done by exploring the question as to how so many sightings could all be of a non-existent creature. *Nova* could have explored [pareidolia](#), misinterpretation of sense data, the power of suggestion, the role of desire in perception, etc.

Having been to Loch Ness myself, I observed a couple of phenomena that you might be interested in. My wife and I rode bicycles along the Caledonia Canal in 1984 from Inverness to Fort William. Because we were traveling at a much slower speed than most tourist we were able to observe the amount of optical equipment that people had set up in each pull-out along the Loch. Curiously from Inverness to Urqhart Castle every pull-out had several people with high power binoculars, telescopes, telephoto lenses, etc. all pointed out over the Loch.

However once you passed the Castle the amount of viewing dropped to zero. From the Castle to Fort William, we did not see anyone looking over the Loch. Another phenomenon we observed was at Urqhart Castle itself. While touring the castle ruins we both happened to notice a boat go by a few tens of meters

from the shore line, an event which was unremarkable except for what followed. Several minutes later after the boat had gone down the Loch and was no longer in sight, we observed a wave building to the northeast of the castle, about 30m to 40m off shore. The wave swirled around and around in a circle, drawing ever tighter and building up until it had reached a few centimeters in height (maybe as high as 30 cm) with a loud rushing sound until it abruptly disappeared, exactly like the description in the Nova piece from the head investigator.

I think that Urqhart Bay has a curious structure that allows waves to be reflected back on themselves. To the northeast of the castle is a curved bay which allows boat wakes to be reflected on focused to a certain spot long after the boat has passed. Along with the legend and an active imagination, anyone could build monsters out of these waves. In fact one of the famous Nessie pictures showing Urqhart Castle in the background and Nessie in the foreground has Nessie almost perfectly positioned in the focus of the bay.

Keep up the good work! Your site is a barrel of laughs!
Stuart Black

17 Nov 1996

I have just read your piece on the Loch ness monster in the Skeptic's Dictionary, and although I am a Ness investigator and on the "other side" as it were, I think your work was well-written and logically thought out.

However there is one piece of info you divulge that is a bit off the mark. You refer to the Nessie business as providing full employment to cryptozoologists like Alastair Boyd. I thought you ought to be aware that Mr Boyd does not profit from full employment in this field. I have spent many months this year in his company and can assure you he makes nothing out of cryptozoology. In fact he makes nothing out of anything, simply because he has been the victim for quite a few years of Myoencephalic Emeylitis or M.E. as it is more commonly known.

Alastair is unable to work and it is nothing short of superhuman that he found the strength in his condition to track down Spurling and obtain the story on the surgeon's photo hoax. It would be good of you if you were to alter the offending paragraph in the interests of complete accuracy in your otherwise splendid article.

As a skeptic you surely must believe that accuracy is the best policy.
John Kirk.



[Loch Ness Monster](#)

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logical positivism (a.k.a. logical empiricism)

Logical positivism is a philosophical attitude which holds, among other things, that metaphysics, more or less, is bunk. According to the positivists' "verifiability principle," a statement is meaningful if and only if it can be proved true or false, at least in principle, by means of experience. Metaphysical statements cannot be proved by means of experience. Therefore, metaphysical statements are meaningless.

Critics of logical positivism have pointed out that since the verifiability principle itself cannot be proved true or false by means of experience, it is therefore meaningless.

See related entries on [naturalism](#) and [scientism](#).

further reading

["Logical Positivism"](#) in the Internet Encyclopedia of Philosophy

[Friedman, Michael. *Reconsidering Logical Positivism* \(Cambridge University Press, 1999\).](#)

[Giere, Ronald N. and Richardson, Alan W. \(ed.\), *Origins of logical empiricism* \(Minneapolis: University of Minnesota Press, 1997\).](#)





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scientism

Scientism, in the strong sense, is the self-annihilating view that only scientific claims are meaningful, which is not a scientific claim and hence, if true, not meaningful. Thus, scientism is either false or meaningless.

In the weak sense, scientism is the view that the methods of the natural sciences should be applied to any subject matter.

See related entry on [naturalism](#).

further reading

["Ludwig Wittgenstein"](#) in the Internet Encyclopedia of Philosophy

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 [science](#)

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reader comments:

lucid dreaming

27 Oct 1999

If you can dream that you are seeing, hearing, feeling, etc. things that you really are not, isn't it possible that you could dream that you have control of your dream when really you do not? How would a person be able to tell the difference between lucid dreaming (if there is such a thing) and dreaming that they were lucid dreaming?

I'm not claiming that the above refutes lucid dreaming, but I do believe that someone claiming lucid dreaming exists would have to somehow demonstrate that they really have control, rather than merely the dream playing a trick on the mind making you believe that you had control.

Toff Philippo

12 Sep 1999

I am very glad to have found your Skeptic's Dictionary, and I look forward to perusing it at great length.

My views on lucid dreaming are similar to many other readers who responded. I have found lucid dreams to be very positive experiences, with no contradiction whatsoever with critical thinking and skepticism. Your entry seems to me to have an undeservedly negative tone.

I found the lucid dreaming entry because I was exploring the collection of links for junk science and pseudoscience. The article doesn't justify inclusion in this category. My understanding is that prior to LaBerge's experiments many people did not believe that conscious action in one's dreams was possible. LaBerge's original work where dreamers gave predetermined signals during REM seems to me to be good science, demonstrating that this belief was wrong (although I admit that I have not read the original paper).

You state in the reader comments section that LaBerge's devices "sound like snake oil" to you, and the tone of the entry suggests as much. But if there is no research to indicate the effectiveness of these devices, I would encourage you to put this in the article, rather than leaving it to implication. Because I respect LaBerge's original demonstration, I would not be surprised at all if there were

solid research showing that these devices increase the incidence of lucid dreaming.

You write "Why Dr. LaBerge doesn't just advocate daydreaming to do all this wonderful transcendent stuff is explained by Frederick van Eeden." This is just silly, and indicates that you are just making fun, rather than looking at lucid dreaming honestly and critically.

If you observe with any care at all, it is clear that the dream state is vastly different from daydreaming. Dreams seem real, while you are in them. Thus you can't have the same experience in a daydream as in a lucid dream, unless you can summon up full-fledged sensory hallucinations on demand, and act within those hallucinations while keeping your physical body essentially immobile and out of harm's way.

Despite this criticism, I want to thank you for providing the Skeptic's Dictionary online. I have enjoyed other entries that I have read and I look forward to reading more.

David Montgomery

21 Jul 1999

I have thoroughly enjoyed your Skeptic's Dictionary. I'd like to add a thought or two about lucid dreams. I've had this experience three or four times in my life, and I only wish it were more often! Usually, the trigger is a nightmare so severe that I become extremely frightened and agitated. Suddenly I realize that I am dreaming and that I can control events. In one instance I caused a lock to appear on a door that I had been unable to close -- I locked the door and then woke up. Another time I was being chased by threatening people when I realized it was a dream. I turned my back on them, decided that they were no longer there, and went flying over the city at night, then on an undersea adventure, "flying" through water. It was one of the most euphoric experiences in my life. I have tried to induce lucidity, but without success -- it happens independently of any efforts on my part.

Interestingly, many of the other commenting on lucid dreams also mentioned nightmares -- could the stress be a trigger? Or maybe that "nightmare" feeling is so distinctive that we recognize it, even in a dream, and it tips us off that we're not awake. The other trigger I have noticed is that I have had several lucid dreams while feverish. Once when running a fever and dozing, I became very distressed when I realized I was dreaming but was unable to wake up. It was a panicky feeling, quite unlike my other experiences.

The other thing I found interesting was your speculation that lucid dreams might be caused by a frontal lobe that isn't quite shut off. This would certainly be corroborated by my experiences, because even when not dreaming "lucidly,"

I will often become perplexed and agitated in the middle of a dream when I realize that the circumstances of my real life do not match the situation in the dream -- I can't remember committing the murder I am accused of, or my cat has kittens and I become very confused because I know that she has been spayed, that sort of thing. Even while dreaming, I question the premises and inconsistencies in the dream. Maybe those of prone to lucid dreams do have some kind of mild prefrontal lobe glitch? At any rate, I've always assumed it was a nice little bonus for those of us so inclined -- certainly not a spiritual message or anything of that sort.

Is there such a thing as lucid dreaming? It depends on how you define it. Anyone who has had a dream in which he realized he was asleep and could control events will tell you that it is a unique and unforgettable experience, quite unlike normal dreaming. In this sense, lucid dreaming unquestionably exists. If it is defined as somehow getting in touch with something outside of one's body -- I really doubt it.

Cathy Georges

05 Jul 1996

Dear Skeptic,

Since I have Lucid dreamed, I must tell all skeptics out there that they're being utter and complete rationalists and are probably afraid of their own power. That's why they're skeptics, I guess.

reply: There's nothing more nightmarish than an utter and complete rationalist who's afraid of his own power!

Lucid dreaming simply allows the subconscious realization of what the various faiths have been saying all along, the thought came before the deed, and "as within, so it is without".

reply: I thought it was something like that but I am glad you said it for me. This way I can't be accused of treating this subject lightly. (Actually, though, I think the proper aphorism is "as it is without, so it is within, unless you are within six paces of a Taco Bell.")

Nevertheless, there is a need for skeptics, those who are "faith-challenged". Just as there's a need for this computer, and my fingers, etc., etc..

reply: Is this the famous *argumentum ad needium* of the scholastics? There is a need for everything under the sun, except for the things that aren't needed?

I'm glad you're getting this out there! Any spur to thought is most welcome.

reply: It depends on whose horse is getting spurred, I think.

Oh, and Lucid dreaming scared the fuck out of me, so of late, I haven't done much of it. Pity.

reply: Well, it certainly has fouled your mouth! Maybe you should lay off the lucidity for awhile and wash your mouth out with soap!

Do you TRY anything before you skepticize it? Experience, finally, is the greatest truth.

reply: I try not to skepticize anything, actually. I have tried some of the things I've written about, but generally I do not try silly or immoral acts before I write about them, skeptically or otherwise. Experience is neither a small nor a great truth. Experience can lead one to the truth, but it can also lead one to falsehood and error. Any sentient creature can have experience. If it's truth you want, it's not experience that counts but who has the experience and how critically they can think about it.

29 Sep 1996

I just downloaded your Skeptic's Dictionary, at first being very happy to have found an internet resource which shows all those occult matters discussed and praised on a million webpages from a different light.

Having read through just a few of your articles I am disappointed to find that you do not try to engage in a critical discussion on the various issues, but merely dig up arguments to denounce the various topics. Your responses to the negative comments show that you do not seek the "truth". instead it seems to me, that you ridicule them and dismiss their thoughts and experiences right away.

reply: Glad you noticed. For a while there I was beginning to think I was a voice crying in the wilderness.

I myself am what you probably would call an open-minded seeker, not having experienced many of the occult phenomena. I have been gathering a lot of information on different subjects though and I am assured that those people who say they experience these really do experience them - they are not lying. the question is if they are tricking their own mind.

reply: You don't think anybody lies about this stuff?

Furthermore, I have experimenting with lucid dreaming and would like to

comment on your article about it in more detail. All of your claims you make are valid; I just get the feeling you have not investigated much in this subject. Instead it seems to me that you were just seeking to find arguments to disprove lucid dreaming.

reply: Aha. Now the truth as to why you wrote comes out (of course, the astute reader already figured this out, since your comments do appear after the lucid dreaming entry). Anyway, I don't try to disprove lucid dreaming, or any other kind of dreaming, for that matter.

The article starts with the prices for the induction devices, which labels lucid dreaming as an invention of LaBerge's institute to sell their devices. In fact, probably less than 1% of lucid dreamers buy any of these, simply because you can have lucid dreams without anything other than your mind.

reply: I am happy to hear that, although Mr. LaBerge might feel otherwise. But, you are right. His devices sound like snake oil to me. Glad to hear most lucid dreamers wouldn't fall for his pitch.

Furthermore, your article is stuffed with rhetorical questions like "where is the evidence that the more lucid dreams a person has the better off they are ?" Who claimed that ? Nobody said that having lucid dreams should be the goal of our lives. "What is the evidence that lucid dreaming has any significant effect on a person when they are awake ?" All of this sounds like you think people have lucid dreams because they want to improve their normal life ! That is not true for most of them. Lucid dreaming is an addition to their life, like going to a good concert, like spending a day in an amusement park, like trying out some of these new virtual reality machines. It is fun, nothing more and it is a lot of fun. But it is not meant to improve your waking life - simply because even experienced lucid dreamers do not have lucid dreams very often. Also, there are different degrees of control you can have, so it will never be like "okay, tonight I will do something I want to do but I do not dare to do in real life, then after the night I will be able to do it without fear. True, some people, like LaBerge, claim this to be one possibility, but I do not know of any that actually pursue lucid dreaming because they want to improve their normal life. I think you have been prejudiced after reading LaBerge's website. His website does look like a cult promoting lucid dreaming, promising a lot, offering the induction devices for a lot of money and so on. But there is a lot more to lucid dreaming.

Well, I can see that now.

I have had lucid dreams - not very many, but I enjoyed every one of them. I was skeptical about them before, but I tried to have them anyway and I am thankful I did. It has not changed my life but added some more sugar.

Markus

reply: So, if you want to add some spice to your life, you might join Markus

in a dream or two, but remember you don't need all those costly contraptions to fly away home.

09 Dec 1996

I have to respond to your comments regarding lucid dreaming, if for no other reason than you may be missing out on one of life's free treats. I have been doing this for years and it is wonderful. Does it give me any profound spiritual insights? No, I am still a devout atheist when I wake up. Did I spend lots of money to learn how to do that? No, I bought a skinny little book about 20 years ago, that instructed me to remember and write down all my dreams every morning until I began to have lucid dreams. That's all, and it worked. Took about three weeks. Now I can fly, breathe under water, have sex with movie stars and bedazzle villagers with my magical powers. Wheee! It doesn't change anything, it's just fun. Try it!

Leslie Steach

11 Jan 1997

Yes, I am a skeptic. So much so that my ex-husband's nickname for me was "linear, logical, literal-minded." There, that said, let me add that I am a lucid dreamer. There are two types of lucid dreams, those that are deliberately induced prior to falling asleep and those that simply occur while dreaming. I belong to the latter group and I have never made an attempt to belong to the former group. Do I believe that lucid dreaming is a good thing? Yup, it's saved me from more than a few nightmares (in fact, I don't have nightmares anymore).

Do I feel privileged? No, just grateful. What does it feel like? Well, it's kind of like observing yourself while you dream. If you believe that consciousness is a one-track tape then obviously lucid dreaming is a tough concept to grasp. Did I teach myself to dream lucidly? Nope, it just happened. BTW, Bob Dylan was wrong, you don't have to be asleep in order to dream...just ask any narcoleptic, they'll tell you all about it.

R.T.

7 Apr 1998

I started attempting to "guide" my dreams when I was a teenager. Why? Because it would help avoid recurring nightmares or bad dreams. This was not always successful, and I didn't even start out knowing what I was doing, but I would sometimes get to a point in the dream where I realized I was dreaming

and recognized the same pattern. Usually, I would wake up and then have to deal with trying to get back to sleep, and hopefully dream of something more pleasant. But sometimes if I could just change one little thing in the dream, the story would shift and not be so bad or scary.

Hey, it didn't always work, but sometimes it did. Later on, I realized that I could try it when a dream wasn't so bad, just to see what would happen. But usually you just wake up because you become too aware of what is going on. I can't imagine "controlling" a dream, because when you are that conscious it is pretty much impossible to stay asleep.

Rebecca Slivka



[lucid dreaming](#)

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lycanthropy

The delusional belief that one has turned into an animal, especially a [werewolf](#). In Europe during the Middle Ages, lycanthropy was commonly believed to occur due to witchcraft or magic. One modern theory is that the rye bread of the poor was often contaminated with the fungus ergot, which caused hallucinations and delusions about werewolves.

Stories of humans turning into animals such as tigers, swans, monkeys, etc., are widespread and seem to occur in all cultures, indicating shared human fears (e.g., fear of the wildest local beast) or desires (e.g., wishing for powers such as great strength or the power of flight), or common brain disorders.

further reading

[Eisler, Robert. *Man into wolf, an anthropological interpretation of sadism, masochism, and lycanthropy; a lecture delivered at a meeting of the Royal Society of Medicine*. With an introd. by Sir David K. Henderson. \(London, Routledge and Paul, 1951\).](#)

[Noll, Richard. editor, *Vampires, werewolves, and demons : twentieth century reports in the psychiatric literature* \(New York : Brunner/Mazel, 1992\).](#)





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vampires

Vampires are mythical creatures who overcome death by sucking the blood from living humans. The most common variation of the myth portrays the vampire as a dead person who rises from the grave at night to seek his victim from the realm of the sleeping. The vampire is a popular theme of [film makers](#) who have started with Bram Stokers's novel (*Dracula*) and added a number of variations to the theme, e.g., the ability to fly (like the vampire bat); a lust for beautiful women as victims who then become vampires upon being bitten; fear of the symbol of the Christian cross; the repelling power of garlic or garlic flowers; and death by sunlight or by a special stake driven through the heart (a fitting death for a character based on the 15th century warrior, Vlad the Impaler).



Legends of bloodsucking creatures are found in many cultures throughout history. One of the more popular bloodsuckers of our age is the [chupacabra](#). The vampire is also a popular literary subject. Hence, there are numerous descriptions of the origin, nature, powers, etc. of vampires. What seems to be universal about vampire myths is their connection with the fear of death and the desire for immortality. The ritual drinking of blood to overcome death has been practiced by many peoples. The Aztecs and other Native Americans, for example, ate the hearts and drank the blood of captives in ritual ceremonies, most likely to satisfy the appetite of their gods and gain for themselves fertility and immortality. Also typical were the rites of Dionysus and Mithras, where the drinking of animal blood was required in the quest for immortality. Even today, some Christians believe that their priests perform a magical [transubstantiation](#) of bread and wine into the body and blood of Christ to be eaten and drunk in the quest to join God in eternal life.

We might say we've made progress in our ritualistic quest to overcome death. First, we sacrificed humans and drank their blood to keep the gods alive and happy, or to join them in overcoming death. We later came to substitute bulls or other animals for humans to achieve our goal. Finally, we progressed to a vegetarian menu of bread and wine. Even so, the basic truth is depressing: for anything to live, something or someone else must die. Whether this truth sets you free or not depends, I suppose, on your place at or on the dinner table. Since we are deep into metaphors, we may as well note here that the vampire has become a metaphor for those who define and create themselves by destroying others. People whose lives center on destroying other people's lives by disempowering them, who reduce their victims to dependent subjects to be lorded over, have been called [spiritual vampires](#). Some of the therapists, ministers and gurus I've written about elsewhere in the *Dictionary* could be called spiritual vampires, very aptly.

This cultural link between vampirism and the quest for immortality seems to have been subordinated in literature and film, where other themes, such as blood for blood's sake, fear for fear's sake, or entrance into the realm of the occult, seem to dominate. One sign of the cultural deterioration of our ancestor's noble quest for immortality can be seen in the modern secondary meaning of 'vampire': a woman who exploits and ruins her lover. Another example of deterioration can be seen in the numerous WWW sites on vampires which appeal to occult or New Age interests such as entering the so-called dark side of reality, gaining power, establishing a unique identity as a special person or selling commercial products and games.

Apparently, role playing and masquerading as vampires is not enough to satisfy the bloodlust of some people, and covens or cults of "vampires" have emerged among some occultists. They seek blood to give them power, a sexual rush, or to establish a unique and special fictional persona based on creating fear and mystery in others. Unlike our ancient ancestors, their power is not sought because of fear based on ignorance and misunderstanding of nature, but on ignorance and misunderstanding of themselves. Like other occult cults these vampire covens are attractive to the young and the weak.*
Just a few years ago, such "vampyres" would have been considered ill or evil. Today, they are said to have an "alternative lifestyle."

* "5 vampire cultists nabbed in killings," reads the headline of a story in the *Sacramento Bee* (November 29, 1996, p. A28). The five are all teenagers from a self-described "Vampire Clan" in Kentucky. They're wanted for the murders of Richard and Naomi Wendorf of Eustis, Florida. The 15-year-old daughter of the victims is one of the suspects, along with her boyfriend who was described by schoolmates as having boasted of immortality as a vampire.

further reading

- [Vampires: The Origin of the Myth](#) by Adrian Nicholas McGrath
- [The Vampire - a definition](#)
- ["Staking Claims: The Vampires of Folklore and Fiction"](#) by Paul Barber
- [Elizabeth Miller's Dracula Site](#): A Literature Professor shares her love of Draculania
- [Sanguinarius.org](#)

Anscombe, Roderick. *The Secret Life of Laszlo, Count Dracula*, (New York : Hyperion, 1994).

[Barber, Paul. *Vampires, Burial, and Death: Folklore and Reality* \(New Haven : Yale University Press, 1988\).](#)

[Clark, Stephen. *How to Live Forever* \(Routledge, Inc.: New York, 1995\).](#)

[Gelder, Ken. *Reading the Vampire* \(London: Routledge, 1994\).](#)

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[urine therapy](#)

[James Van Praagh](#)



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[lunar effects](#)

reader comments:

19 Nov 2002 (full moon)

I recently read your article on the full moon. In your article, I see that nursing homes were mentioned, and that studies show there is no change in behavior in residents. As an RN of twelve years, and after working in a nursing home for seven, I assure you, you are wrong. Or rather, the study is wrong. I have given more Haldol, and anti-psychotics on the eves of full moons than at any other time. I have the charts. Also, the roaming, and noise is at its all time high during a full moon. I don't know what proof you have, but I have seen this with my own eyes, and I have medical charts to prove it.

Lauren

19 Nov 2002

Readers of this "phenomenon" can think what they want to but don't criticize those who believe until you have walked in my shoes. I work for a 911 office and also have a father with Alzheimer's disease. We get more crazy and terrible calls around the full moon each month at work than at any other time. My father has a "cycle" just like the moon that he has followed for the past 3-4 years since he was first realized with the disease. The week before the full moon is what I call "hell week" with him. He is much more confused, agitated, clumsy, rebellious, etc etc that week than at any other time of the month. So you can believe what you want, but I still think the full moon has an effect on human beings.

"Lee"

reply: Lauren and Lee raise an important point: What are we to make of the fact that our personal experience contradicts the results of scientifically designed and controlled studies? One response is that of the chiropractor who remarked to [Ray Hyman](#) after a chiropractic claim had been falsified in a [double-blind controlled study](#): "You see, that is why we never do double-blind testing anymore. It never works!" Personal experience can be overwhelmingly persuasive, especially if one is unaware of such things as [confirmation bias](#), [subjective validation](#), [wishful thinking](#), [the nocebo effect](#), and [self-deception](#). Lauren knows from personal experience that patients in her nursing home make more noise, roam about more, and require more antipsychotic drugs on full moon nights. Thus, studies that have found no significant correlation between the full moon and behavior in nursing homes must be wrong. She says she "has the charts" to prove it. But the only thing she is likely to have on the charts, I think, would be such things that have to be recorded such as administering Haldol. (How much noise people make is

subjective and unlikely to be recorded on any chart.) Lauren should give copies of the charts to an independent investigator to examine. Because it is easy and common to selectively perceive data that fits our preconceived notions, the data must be objectively analyzed to see if significantly more Haldol is given to patients on full moon nights. We shouldn't rely on our impressions and confidence that we've got the data "in the charts."

Lee should also provide copies of the 911 calls over a year's period to an independent investigator to examine. Perhaps her impressions are right, but to eliminate the possibility of bias and selectivity of memory, she should have the data evaluated by someone else.

As for her father with Alzheimer's becoming much more difficult in the week before a full moon, we should sympathize with her plight, but note one important thing. She says it is the week *before* a full moon that is "hell week." So, it can't be due to the full moon's influence, unless in this case the effect precedes the cause. Her father's behavior may well be cycling, but the *cause* of the cycling is not likely the moon.

Now, it is possible that all the studies are wrong and Lee and Lauren are right, but what are the odds? Lauren and Lee remind us of how powerful unexamined personal experience can be in persuading us to believe things contrary to evidence gathered much more objectively. They remind us of the power of suggestion and of how easy it is to find confirmation of our beliefs without even realizing that we are being selective in our perceptions and memories. If you believe the full moon makes people behave weirdly, you will have no trouble finding support for your belief. You will notice events that confirm it; you will mention it to others who will reinforce your belief by agreeing with you and providing examples of their own. You will find support for the view in the media every full moon. Police officers will verify it, as will nurses and many others who work in institutions. All the unexamined, unsystematically gathered data supports your view. The systematic and controlled examination of the data contradicts what "everybody knows." Who should you believe? Some unknown scientist or your own eyes? Neither is infallible, but perception without controls for self-deception is the less reliable of the two.

5 Jan 2001

I just read your essay on the full moon and the update at the end of it relates to a humorous story regarding the increase in alcohol consumption.

My first job at the phone company was as a Directory Assistance operator (411). It did not take long for me to believe the full moon effects completely. On a pretty regular basis the weirdo calls would increase to such an extent

that "it must be a full moon out there" was just accepted as a fact. Sometimes I would remember to check the sky on my drive home and sure enough: full moon. Of course sometimes I would forget to check. But I still dreaded a full moon if I knew one was coming and assumed a full moon was the cause at other times.

Jump ahead a few years. I get a job as a technician with regular 8-5 hours in a new location that has a bar around the corner that telephone employees hung out in. I got in the habit of stopping by pretty much every night after work for a couple of beers and to hang out with my coworkers. This was a real dive, the kind of joint that had customers at 7am. The bartender was an old soul and the kind of guy who would kick out any jerk dumb enough to ask for a drink that had milk in it. One night as I was reading the paper at the bar I couldn't help but notice the steady parade of one weirdo after another. The next time Bernie came down to get me another beer I said "jeez, Bern, lot's of weirdo's out tonight, huh?". Bernie said "yup". He was a man of few words. I said "must be a full moon". Bernie said "nah. Check day." And he walked away. I laughed my ass off for about 10 minutes. Now that made a lot more sense than my theory.

Lori

2 May 2000

In my business (wine), one hot topic is the practice of "biodynamic farming." This is a whole system of agriculture developed by [Rudolph Steiner](#) (!) which relies on a combination of homeopathy, astrology, and lunar correlations.

An example of the last is the requirement that pruning of the vines and racking of the wine (jargon for siphoning the wine off its lees into another barrel) take place only under specified phases of the moon. I've patiently explained to gullible winemakers and consumers, using simple math, that the notion of lunar gravitational influence is nonsense. But one often repeated claim in support of biodynamicism's plausibility is that the flow of sap in plants is "well-known" to follow the lunar cycle.

Since you're at a University with an agro department and you've got an updated section on Lunar Effects, perhaps you might know whom to ask to verify if this is true or not? The biodynamics guys have quite a following among some VERY prestigious producers and I'd like nothing better than to introduce more light and less "everybody knows that..." into these discussions.

Stuart Yaniger

reply: You must have me confused with someone else. I'm not at a university and Sacramento City College does not have an agricultural department. I do, however, live in a city (Davis, CA) which has a

university with an agricultural department. They also have viticulture and oenology departments. My experience in this area comes from frequent visits over the past twenty years to wineries in the Napa and Sonoma Valleys and the Sierra foothills. I've had my ear bent by a lot of winemakers and winemaker helpers but none have mentioned lunar cycles, much less the "flow of sap in plants." Of course, I may not have been listening very carefully due to the intensity of my concentration on their product.

Frankly, if they make good wine, I don't care if they use astrology or consult James Van Praagh for advice.

2 May 2000

First, comments that come to mind on the purported association of menstruation, fertility, and the lunar cycle:

In us human females, the menses are the period of lowest fertility - logically enough, as it is when the uterine lining that would sustain the developing embryo is shed. Ovulation, during which equally logically fertilization can occur, generally happens roughly mid-way in the menstrual cycle, or between periods of menses rather than concurrently. This isn't invariably the case, as some I've known who've tried to rely on various calendrical methods of birth control have found, but on average it is.

Ergo, whether or not onset of menses could occur synchronistically with the full moon (something that in roughly 33 years of experience I've somehow failed to notice), it would not usually be associated with peak fertility.

In some other mammals, blood-tinged vaginal discharges do occur just prior to peak fertility; these are not, however, menses (so far as I'm aware, menses do not occur in other mammals, the uterine lining digressing and being reabsorbed). At a guess, this may be more roughly analogous to the increase in vaginal discharges, which may or may contain minute quantities of blood, that usually occur when a woman ovulates.

As a side note, the article linked to the discussion on lunar effects describing the human menstrual cycle <<http://www.fwhc.org/moon.htm>> includes the highly questionable statement: "PMS and menstrual cramping are not diseases, but rather, symptoms of poor nutrition." So far as I'm aware - having looked into it periodically on PubMed and elsewhere - studies have yet to establish any clear link between nutritional factors and either of these phenomena of the menstrual cycle. To date the only nutritional supplementation that has shown consistent significant results in medical studies would seem to be calcium supplementation, which appears to reduce the symptoms of mild to moderate PMS. Other widely-touted nutritional

strategies, ranging from restriction of "stimulating" substances and foods to supplementation with Vitamin B-6 and evening primrose oil, have so far not panned out in double-blind studies, with results being conflicting and inconclusive.

Stacy Scott

reply: the above nutritional recommendations represent the views of the letter writer only.

28 Apr 2000

On reading your entry entitled "full moon and lunar effects", I recalled an article by Cecil Adams that appeared in his Straight Dope column some years ago. The article was entitled "What's the link between the moon and menstruation?"; an on-line transcription of the article is available on The Straight Dope 's website, at

<http://www.straightdope.com/columns/990924.html> .

One clause in Cecil Adams's article caught my attention; he said, "studies have found the average menstrual period is 29 days and change," not 28 days as is traditionally reported. Unfortunately, he doesn't say WHICH studies have found this, so it's not going to be easy for me to go back and verify this claim in the peer-reviewed literature.

I've also heard of a study (again without a name or journal reference!) in which volunteer women were placed in rooms that separated from each other (so that they wouldn't be exposed to one another's pheromones), and whose only light source was natural outdoor light (e.g. sunlight and moonlight). This study allegedly found that, after a while, all of the women's menstrual cycles were synchronized with the moonlight. The hypothesis is that ever since we humans learned to harness fire, our artificial light sources pretty much wash out any moonlight or lack-of-moonlight we might experience at night; but before we learned to create artificial light at night, moonlit nights were much safer from predators, and therefore a better choice for mating in than moonless nights. The popular notion that moonlight is "romantic" may be a vestige of this.

Roger M. Wilcox

reply: It is pretty romantic to think that our pre-hominid ancestors mated mainly at night under the light of the full moon. I wonder if they consulted their astrological charts before coupling?

19 Apr 2000



morphic resonance

Morphic resonance is a term coined by [Rupert Sheldrake](#) for what he thinks is "the basis of memory in nature....the idea of mysterious telepathy-type interconnections between organisms and of collective memories within species."

Sheldrake has been trained in 20th century scientific models--he has a Ph.D. in biochemistry from Cambridge University (1967)--but he prefers [Goethe](#) and 19th century [vitalism](#). Sheldrake prefers teleological to mechanistic models of reality. Rather than spend his life, say, trying to develop a way to increase crop yields, he prefers to study and think in terms outside of the paradigms of science, i.e., inside the paradigms of the occult and the paranormal. One of his books is entitled *Dogs That Know When Their Owners Are Coming Home: And Other Unexplained Powers of Animals*. One of his studies is on whether people can tell when someone is staring at them. (He says they can; others have been unable to duplicate his results.*)" He prefers a romantic vision of the past to the bleak picture of a world run by technocrats who want to control Nature and destroy much of the environment in the process. In short, he [prefers metaphysics](#) to science, though he seems to think he can do the former but call it the latter.

'Morphic resonance' (MR) is put forth as if it were an empirical term, but it is no more empirical than L. Ron Hubbard's '[engram](#)', the alleged source of all mental and physical illness. The term is more on par with the Stoic's notion of the [Logos](#) or Plato's notion of the *eidōs* [[εἶδος](#)] than it is with any scientific notion of the laws of nature. What the rest of the scientific world terms *lawfulness*--the tendency of things to follow patterns we call laws of nature--Sheldrake calls morphic resonance. He describes it as a kind of memory in things determined not by their inherent natures, but by repetition. He also describes MR as something which is transmitted via "morphogenic fields." This gives him a conceptual framework wherein information is transmitted mysteriously and miraculously through any amount of space and time without loss of energy, and presumably without loss or change of content through something like mutation in DNA replication. Thus, room is made for psychical as well as physical transmission of information. Thus,

it is not at all necessary for us to assume that the physical characteristics of organisms are contained inside the genes, which may in fact be analogous to transistors tuned in to the proper frequencies for translating invisible information into visible form. Thus, morphogenetic [sic] fields are located invisibly in and around organisms, and may account

for such hitherto unexplainable phenomena as the regeneration of severed limbs by worms and salamanders, phantom limbs, the holographic properties of memory, telepathy, and the increasing ease with which new skills are learned as greater quantities of a population acquire them.*

While this metaphysical proposition does seem to make room for telepathy, it does so at the expense of ignoring [Occam's razor](#). [Telepathy](#) and such things as [phantom limbs](#), for example, can be explained without adding the metaphysical baggage of morphic resonance. So can [memory](#), which does not require a holographic paradigm, by the way. The notion that new skills are learned with increasing ease as greater quantities of a population acquire them, known as the [hundredth monkey phenomenon](#), is bogus.

In short, although Sheldrake commands some respect as a scientist because of his education and degree, he has clearly abandoned science in favor of theology and philosophy. This is his right, of course. However, his continued pose as a scientist is unwarranted. He is one of a growing horde of "alternative" scientists whose resentment at the aspiritual nature of modern scientific [paradigms](#), as well as the obviously harmful and seemingly indifferent applications of modern science, have led them to create their own paradigms. These paradigms are not new, though the terminology is. These alternative paradigms allow for angels, telepathy, psychic dogs, and hope for a future world where we all live in harmony and love, surrounded by blissful neighbors who never heard of biological warfare, nuclear bombs, or genetically engineered corn on the cob.

further reading

[reader comments](#)

- [The Psychic Staring Effect An Artifact of Pseudo Randomization](#) by David F. Marks and John Colwell
- [Rupert Sheldrake: The delightful crackpot](#) by David Bowman
- [The amazing ideas of Rupert Sheldrake](#) by John Blanton
- [Two Shaky Experiments](#) by Sir Jim R Wallaby (published 14/3, 1994)

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Last updated 07/01/02



[\(full\) moon](#)

[Moses syndrome](#) 

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werewolf

A werewolf is an animal from folklore believed to consume human flesh or blood, which can change from human to wolf and back again. (*Wer* is an Old English term for *man*.) While there are no documented cases of any human turning into a wolf and back, there are documented cases of humans who *believed* they were werewolves. To suffer from such a delusion is known as [lycanthropy](#).

Some have speculated that certain excessively hirsute individuals resemble wolves and that the legend of the werewolf may have a basis in the genetic disorder known as [hypertrichosis](#) or in some other endocrine disorder, such as adrenal virilism, basophilic adenoma of the pituitary, masculinizing ovarian tumors, or Stein-Leventhal syndrome. (See the [Merck Manual](#).)

further reading

- [Werewolves](#)
- [alt.horror.werewolves](#)

Danforth, Charles Haskell, *Hair; with special reference to hypertrichosis* (Chicago, American Medical Association, 1925.)

Noll, Richard. editor, *Vampires, werewolves, and demons : twentieth century reports in the psychiatric literature* (New York : Brunner/Mazel, 1992).

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Last updated 12/30/01



[Our Lady of
Watsonville](#)



[wicca](#)

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[Lysenkoism](#)

reader comments:

Lysenkoism

27 Nov 1996

About Lysenkoism: First: no one in Russia knows Michur, his last name was Michurin. He was a good plant-breeder but not a good evolutionist. Trofim Denisovich Lysenko as a scientist was worse than you can imagine. One of his ideas: if you feed a calf from birth with bran, it will become a pig. I understand that it's nonsense but it's our history (I'm Russian).

Another side of Lysenko's activity was his struggle against geneticists in the USSR. Before WWII we had a good genetics school but Lysenko was a Stalin favorite and most of them (geneticists) were killed or died in prisons. And he so hated genetics that in Russian dictionaries after the War articles about the "gene" said that a "gene is mythical part of living structure which in reactionist theories as Mendelism-Veysmanism-Morganism determines heredity. Soviet scientists under rule of Lysenko proved scientifically that genes don't exist in the nature."

Sincerely yours, Vladislav Zarayskiy.



[Lysenkoism](#)

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reader comments:

macrobiotics

30 Jan 2000

I try to follow a macrobiotic diet and believe that it has helped me enormously, but in spite of being macrobiotic, I am in sympathy with some of your criticisms. I do believe that macrobiotics has erred in placing too much emphasis on the metaphysical and not enough on the rational and scientific.

Macrobiotics works, in my opinion, because it is, in many ways closest to the diet that most human beings ate during most of human evolution (the Ice Ages are an exception). This diet emphasizes whole grains, beans, and vegetables -- incidentally, a diet very close to the one recommended by the new Food Pyramid-- and minimizes processed food, sweets, and animal products. It seems to me that eating a diet that our bodies are evolved to eat is sensible.

To me, Yin and Yang are somewhat analogous to the concept of homeostasis, but of course yin and yang are more primitive conceptions that were developed before the advent of the scientific method. If Yin and Yang are viewed in this light, it becomes somewhat more reasonable, although in my opinion, macrobiotics has erred in turning these concepts into dogma instead of using them as the quite useful tools they in fact are. It has also been my experience that balancing food in terms of yin and yang will usually produce a balanced diet, because the yin-yang theory of diet was based on observations, however informal, about what actually works.

But I also have a certain level of skepticism about science for two reasons. The first is that throughout most of human history, humans were able to eat in ways that sustained life without the benefit of biochemistry and modern nutrition. Presumably, they did this by observing the effects that certain foods had on the people that ate them. Humans can make sound decisions without the basis of laboratory techniques, although science can certainly increase the odds of making the right decisions and help to explain why certain choices are good or poor.

Secondly, science makes mistakes. The idea of the four basic food groups was supposed to be based on nutritional science --or so we were taught in school-- and yet those recommendations have turned out to be seriously flawed and have been replaced by the food pyramid. It does seem to me that people eating the broad macrobiotic diet, one that includes fish and plenty of vegetables, would be healthier than those eating a diet based on the four food groups, even though

macrobiotics has its theoretical basis in Asian philosophy and the four food groups was supposedly based on science. (Yes, I know--science is self-correcting, but a lot of people developed a lot of health problems while waiting for science to correct itself.) This is not an argument against or an attack on science. Rather it is an argument for understanding the fallibility of any human endeavor.

reply: Science, unlike metaphysics, not only makes mistakes, it uses methods of inquiry that make it possible to correct those mistakes. Positing yin and yang in foods is not the kind of thing that can be corrected because it cannot be proved or disproved. You might as well assign spiritual worth to different foods.

I think it is also true that the massive amounts of funding required to do really good science make it virtually impossible to do first-rate research on every question. This makes it imperative to rely on observation, traditions about food, and "common sense". Of course, these can be wrong also and should not be followed blindly. But it would also be wrong in my opinion to totally disregard them.

The fact that something stands outside of the Western scientific tradition does not necessarily make it wrong.

Maxine Boggy

reply: No amount of money or research can test the metaphysical claims of macrobiotics, which is a completely separate issue from whether the diet is healthy. It may well be, not because of yin and yang but because of vitamins and minerals and that kind of thing.

25 Sep 1999

A few minutes ago, I saw your webpage:

<http://skepdic.com/macrobiotics.html>

and I must say, I have never seen so much erroneous information, concerning macrobiotics, collected in one place, at one time.

reply: Thank you. Are you writing to tell me that I have won some sort of award?

1) Michio Kushi is misrepresented, in that drinking only "yang fluids" would not help one suffering from schizophrenia.

reply: Good. I am glad to hear that. But I refer to George Ohsawa as the one making the claims about yin and yang, and their relationship to

schizophrenia.

2) *Mr. Kushi's "claims" about cancer, among other diseases, have been studied and taken seriously, by many responsible professionals, including medical doctors, medical researchers, the United States Congress and medical journals, such as the Journal of the AMA and the Lancet. Some of his "claims" have resulted in landmark Medical Studies, such as the Framingham Heart Study and ongoing cancer tests. This summer, the Smithsonian Institute opened a permanent Macrobiotic exhibit, honoring his efforts.*

reply: Good for Mr. Kushi. This is great news that he is the brains behind the Framingham Heart Study, etc. The Smithsonian also recommends further research on the Loch Ness "monster."

3) *The comments on the "metaphysical" selection of foods is humorous. Many macrobiotic books and publications site the mineral and vitamin content of foods, in all food categories, in great detail. Macrobiotic people select foods that have been grown without pesticide residues and the main fare of the diet is whole grains & vegetables (that are high in fiber), while avoiding foods that are high in fat and cholesterol (quite the "metaphysical " coincidence).*

reply: I take it you are suggesting that it no coincidence that metaphysics and natural gardening are in harmony.

Most foods served in a macrobiotic household have been cited by the AMA to be chief contributors in preventing heart disease and cancer (e.g., broccoli and other cruciferous foods, oats and other whole grains).

reply: I've never denied it.

Macrobiotic foods contain Isothiocyanates, Lignans, genistein, daidzein and other Isoflavones; while avoiding Monosodium Glutamate, excess sodium and cholesterol. Macrobiotic people are aware of these facts and use a healthy diet as a preventative measure, trying not to overindulge in foods (like steak, hamburger and ice cream) that are obviously bad for our health.

reply: I've never denied it.

This is usually defined, by reasonable people, as being responsible. Metaphysical? Well, I suppose you read an article somewhere.....

reply: Yes, have you ever heard of George Ohsawa, the originator of macrobiotics?

SUMMARY: I would not be bothered or concerned by your cute webpage, with the exception that it could possibly turn away people who could really benefit from knowing about and realizing greater health and happiness.

If you decide that a particular issue deserves your skepticism, it may be wise to spend a little time collecting all of the facts. In the instance of macrobiotics, perhaps you could even try the diet for a few months. But, that would be taking on a lot of responsibility. Easier to type, type, type away.

Hope no one dies unnecessarily.

Wayne Weber

reply: Me, too.

12 Jun 1999

*I value your **Skeptic's Dictionary**. But I don't value the Macrobiotics description. Your negative view could kill people by turning them away from something which could heal their terminal cancer. The reason that macrobiotics is widely misunderstood, is that only very very few people really do it right. Now, if you had health problems and had them healed with macrobiotics you would look deeper into how that works. The understanding of macrobiotics needs a fusion of dualistic and monistic thinking. In order to think that way you have to eat that way. Otherwise your brain will not be able to understand it. That's the true problem. Brains need a clear nutrition in order to be able to connect to the universe, which contains intuition. No good nutrition - no good intuition - no macrobiotics understanding - no true healing. See www.macrobiotics.org and www.physicalsystems.com/macrobiotics/*

Rolf Bertram

reply: Testimonials from people who were diagnosed with terminal cancer, tried macrobiotics (or Tk47 or Tibetan bells or _____) and later had their disease go into remission are unscientific and based on [post hoc](#) reasoning. Of course, if you are the one whose disease disappears, you cannot help but think it is a miracle. You certainly are not going to give credit to the M.D.s who gave you chemotherapy and then told you that it was hopeless after putting you through months of agony.

A macrobiotic diet can be nutritious but there is no evidence that macrobiotics has healed anybody's cancer.

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reader comments:

magnet therapy

27 Mar 2000

It appears that the alleged therapeutic value of magnets is gaining more mainstream acceptance, at least in Canada. In MacLean's magazine (March 27, 2000, Vol. 113, No. 13) on p. 60 is an advertisement for "Dr. Scholl's Magnet Therapy Insoles." The text is as follows:

"Introducing Dr. Scholl's(r) Magnet Therapy Insoles. See inside for details.

With our new Magna-Energy(tm) Insoles, it's what's inside that counts. And what's inside is magnets. Why? Well, many of you already know and swear by the therapeutic benefits of magnetic bracelets. Those who wear them say the magnets improve circulation leaving you with a general sense of well-being. So what happens when you take the same concept and apply it to a broader area? You get the same results, only better. Magna-Energy Insoles, with our exclusive bipolar magnet system, allow alternating waves of magnet therapy to penetrate your body through the soles of your feet. Add to that, Dr. Scholl's performance proven comfort technology, designed to absorb shock and enhance pain relief, and you have all the reasons you need to look into Dr. Scholl's new Magna-Energy Insoles for yourself. Available in the footcare section of your pharmacy."

Note how the advertiser carefully avoids directly claiming any benefit, using things like "...many of you already know and swear by..." and "Those who wear them say..." It is disappointing that a well-established and well-known company like Dr. Scholl's (at least, in Canada) would stoop to this. It says something about the widespread acceptance of such unfounded "technologies" that they are willing to market such a product.

Ian Ferguson
Montreal, Canada



St. Malachy (Bishop Malachy O'Morgair, 1094-1148)

"In the final persecution of the holy Roman Church there will reign Peter the Roman, who will feed his flock amongst many tribulations; after which the Seven-hilled City (Rome) will be destroyed and the dreadful Judge will judge the people." --so saith Malachy, prophet of doom

Malachy was born in Armagh (in what is now Northern Ireland) and is believed by many to have had the gift of prophecy. He predicted British oppression for the Irish (good call) and conversion of the English back to Catholicism (bad call, but hope springs eternal in the mystic's heart, so, maybe next year...). According to the Abbé Cucherat, Malachy had strange visions of the future, including a list of the popes until the end of time.*

Some Roman Catholics think Malachy has predicted that Armageddon is just around the corner and that after the current pope there will only be two more popes before the end of the world. Of course Malachy didn't name the popes by name--otherwise we'd all be believers in his prophetic skills. He gave them descriptive names. John Paul II, the current pope, is number 110 and he was christened "De Labore Solis," *from the labor of the sun*. Those who have the gift of interpretation tell us that this is an accurate prophecy because John Paul II's father was a laborer and he has traveled around the earth (like the sun? well, remember, the prediction was pre-Copernicus). Some think the name refers to the fact that there was a total eclipse of the sun when JP II was born.

Malachy's prophecies are said to have been locked away for four hundred years before they were allegedly discovered in 1590 in the Roman Archives. Arnold de Wyon first published them. The debate has raged ever since as to whether they are forgeries or genuine predictions of St. Malachy.*

further reading

- [Irish saint 'predicts new pope and end of world'](#) by Desmond O'Grady
- [St. Malachy](#) - *The Catholic Encyclopedia*
- [prophecies of St. Malachy](#) - *The Catholic Encyclopedia*
- [St. Malachy's Prophecy & Pope Pius XIII](#) by Gordon Cardinal Bateman

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 [mahasamadhi](#)

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manifesting

Manifesting is allegedly a way for the average person, without need of [paranormal](#) or divine powers, to do [magick](#) and perform [miracles](#). All one needs is the will to exercise one's magic on the universe. "Manifesting is the art of creating what you want at the time that you want it," says [John Payne](#) (aka Omni, a "being of light" channeled by Mr. Payne).

Manifesting is an eclectic hodgepodge of CYOR (create your own reality), visualization techniques, positive thinking, goal-setting, self-analysis, [selective thinking](#), and [post hoc reasoning](#), supported by tons of [anecdotes](#). The purpose of manifesting is to get what you want by actively making your dreams come true, rather than passively waiting for someone to fulfill your dreams. For example, [Anne Marie Evers](#) recommends "affirmation" as the best way to manifest one's desires. She has written a book titled *Affirmations: Your Passport To Happiness*. Ms. Evers writes:

What Is An Affirmation: An Affirmation is a declaration of acceptance used to fill oneself with an abundance of freedom, prosperity and peace. An Affirmation is the vehicle of the manifestation of your desires. Affirmations are powerful, positive statements of belief recited consistently out loud and sent out into the Universe. The spoken word drives thoughts and images deep into both our conscious and subconscious minds. Slowly, firmly, concentrate on each word, phrase and the idea behind it. We know repetition is the Mother of Learning.

According to Ms. Evers, the first step to getting what you want is to "prepare the soil of your subconscious mind by forgiving everyone and everything that has EVER hurt you, then forgive yourself." This may seem to be a bit too dramatic if all one wants to do is, say, fix a broken garage door. [Jeannine](#), for example, didn't seem too concerned about forgiveness when her garage door was broken. She followed the advice of self-proclaimed expert manifesters [Fred Fengler and Todd Varnum](#), authors of *Manifesting Your Heart's Desire*.

I remembered reading your book and decided to manifest a fix. I started talking to the door and asking it to work. I . . . used to talk to plants and they tended to grow better so I talked to the door. After a few minutes of communicating with the door I pushed the button and the door worked perfectly.

Fengler and Varnum give other examples of successful manifesters. For example, an anonymous writer told them how he or she [sold a business](#).

I decided to manifest using my will power. As I went to sleep, I said out loud, "OK universe, this is what I want. I want an offer. I want a good offer. In fact I want TWO offers. In fact I want them TOMORROW!"

The next day was perfectly normal. I "reminded" the universe it was 4 PM and the office would close at 5:30. I felt confident that the universe would take care of me no matter what happened. Within ten minutes, I had a call from one prospect who said he had an offer and would be right over. Ten minutes after he left the offer off, I got a call from my business consultant. He told me that a second offer was being written and it would be on my desk in 24 hours, which it was.

I accepted the first offer, and we flawlessly closed the deal in less than two weeks.

That's all there is to it. You let the universe know what you want and you'll get it! This should be good news to those superstitious folks who try to sell real estate by burying a statue of St. Joseph on the property. There is an easier way: manifesting!

[Varnum explains](#) that by asserting yourself to the universe you express extra energy in your emotion. The universe listens to people with extra energy as long as one has no fear and is willing to accept whatever the universe hands out. Varnum's caveat reminds me of the warnings of faith healers who tell those who can't get rid of their cancer by faith that they don't really have faith. If the universe fails to give you what you demand, it is because your desire is not coming from the right place. If you get what you desire, then your desire came from the right place.

no coincidences

Manifesting is another New Age technique which denies there is any such thing as coincidence. For example, Fengler and Varnum, in recommending a book on manifesting write:

Some people call it luck or coincidence--or just plain magic. It is the gift of being in the right place at the right time, of having opportunity fall into your lap. But what if you could create your own luck, make "coincidences" happen, even bring a few miracles into your daily life? Drawing on over twenty years of teaching the art of manifestation, David

Spangler shows you how to do just that. Called a "strikingly new, spiritually aware approach to personal power and the fulfillment of your dreams," this new book [*Everyday Miracles: The Inner Art of Manifestation*] is a complete rewriting and updating of David's classic book, *Manifestation*.

Fengler and Varnum's own book, *Manifesting Your Heart's Desire*, is hailed by the authors as a three year "study," but it is little more than a collection of stories from a group of people who met regularly to learn a variety of manifesting techniques. One of the more popular techniques is visualization.

One of Fengler and Varnum's anecdotes involves a girl who was having trouble learning to ride a horse. She visualized riding the way her instructor told her to ride and at the next lesson she was riding well. Visualization seems quite different from talking to your garage door or vocalizing your wishes so the whole universe can hear them. Yet, the practices share much in common. Visualization is mental practice. It is a way to boost confidence. It requires clarifying goals. All of these can help a person who is trying to accomplish some physical feat, like riding a horse or hitting a golf ball. But no amount of visualization will create reality. A golfer can visualize hitting a hole-in-one from now until doomsday without it ever happening. There are some people who believe they can fight cancer by visualizing little cellular warriors killing off cancer cells. The likelihood of such visualization creating the reality desired is near zero. You might as well visualize yourself flying or being in six places at once. If anyone could fix a flat tire by visualization they would be collecting a million dollars from [James Randi](#). But, manifesters don't need Randi; they can get a million dollars just by visualizing it or letting the universe know that that's what they want.

Another manifestor is [John Payne of Omni World](#), who channels a being he calls Omni. According to Payne,

manifesting is the art of creating what you want at the time that you want it. Many of you are becoming aware that you create your own reality....Each and every object and event in your life has been created by you, whether or not you are conscious of the fact. Your reality, the Earth plane, is the result of the mass consciousness of all souls that are incarnate within your system of things. Each and every event in your life can be traced back to a belief and emotion that originated the impulse for it to manifest itself into reality as you experience it at present. In our realms, the realms of pure essence and light, we can create what we want at an instant. We the Beings of Light have mastered our emotions and thoughts and can therefore direct our energies with precision and clarity so that we may create

what we want. You are also learning this skill in this lifetime and you can choose to change what you experience in your reality at any moment you wish to.

If Payne and the other beings of light can create what they want in an instant, then they must not want very much, except maybe a few followers who might buy their books, tapes, crystals, etc. If these beings are so powerful, why don't they end the ethnic hatred in Bosnia, Northern Ireland, the Middle East, etc? Payne is telling us that he and the other beings of pure essence and light could make this world a better place but for some reason they choose not to. I think we all know the reason: they are powerless.

If Payne restricted himself to gibberish about Omni and the beings of light we might do well to ignore him, but it is because of the sensible advice he sprinkles in amongst the metaphysical gobbledygook, that Payne is worthy of consideration. For example, he offers the quite reasonable advice to write down a list of things that give you joy and things you desire to "create." (Let's give Payne the benefit of loose linguistics and call the desire to quit smoking, for example, the desire to create yourself as a non-smoker.) He also advises that you write up a list of fears you have regarding what you want to create, i.e., consider the obstacles to achieving your goal. Writing is a form of "thinking out loud." But the difference between *thinking* about quitting smoking and *writing* the words "I am going to quit smoking on November 17th" and *saying* those words to others is enormous. A silent thought or wish does not pack the wallop of a stated commitment, nor is it as likely to be acted upon.

Unfortunately, Payne clothes his good advice in bad metaphysics. He recommends that you write your goals down

making use of the non-dominant hand. If you are right handed then the non-dominant hand is the left hand and if you are left handed, the non-dominant hand is the right hand. By using your non-dominant hand to write out the answers when uncovering your hidden beliefs, you can tap into the deep inner wisdom of the inner child and your soul. This system of uncovering your inner self and it's [sic] truths can lead to unprecedented levels of healing and harmony.

Why using your non-dominant hand should be the gateway to deep anything is not mentioned.

Payne also recommends visualizing the achievement of your goals and keeping a diary or journal. This is sound advice for people who have trouble clearly identifying their goals and ways to achieve them, as well as for those who have so many goals that it difficult to keep track of them all, much less

develop plans to fulfill them. He also advises that you set aside some time each day where you will not be disturbed. Payne advises to use the time to pray, create sacred ceremonies or write a mantra. The time might be better spent thinking, planning, and writing in a journal.

Payne also recommends networking with friends. Create a group where you discuss your goals and plans for achieving them. This is not a bad idea if you have friends with the same goals you have. But it is unlikely to work if you all have different goals, unless the focus of the group is something very general such as "achieving your goals." But then Payne, not one to leave well enough alone, advises that we call out his name three times when we start our group so he can energize our goals.

Despite the obvious falsity of the main claims of manifesters, some of the techniques they recommend are quite good. For example, if you do not specify a goal, but merely express some vague wish like "someday I'm going to go to New Zealand," then you probably won't ever get your wish. But if you specify your desire, insist on having it satisfied, clarify the obstacles in the way of having it satisfied, determine what is needed to have your will be done, and create a plan for achieving your goal, then you have a very good chance of getting what you want. On the other hand, a lot of manifesting seems to be little more than refusing to accept co-incidence as a fact of life, peppered with a lot of [post hoc reasoning](#) and [selective thinking](#).

One good thing about manifesting is that it could take a person's attention away from the many bad things in life over which we have no control. By focusing on what you want, you may not dwell so much on the bad hand life has dealt you. By specifying your goals, you will be more likely to see troubles as obstacles to overcome rather than as hindrances blocking your chance of success.

On the other hand, it could also be very depressing to think that the only reason you are not getting what you want is because your desires are not coming from the right place.

See related entries on [control studies](#), [confirmation bias](#), and [the law of truly large numbers](#).

further reading

[reader comments](#)



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reader comments:

manifesting

9 Dec 2000

We are all manifesting our lives according to our own beliefs. In reading your article on manifesting it is obvious that you have manifested a life based on straight-lined, logic based, I'll believe it when I see it beliefs. I lived in that world for most of my life. I also took the attack attitude as you have because it challenged my intellect. Open-mindedness came when I found myself in a terrible spot and asked, prayed, thought intently, meditated or whatever you may wish to call it, for help from unseen sources. Belief followed the results of this action. What used to seem paranormal has become part of everyday life. No, I don't understand it, but that doesn't mean it's not happening. Until I set my intellect aside, and became as a child <unbound by learned beliefs> I could not enter the the kingdom of heaven <magic, conscious creating> I am not religious in the least, but I do believe there are great insights into the nature of reality in many sacred writings. I personally never saw it until I was able to cut past the dogma that surrounds it. Have I created what I would call an ideal life? Absolutely not! The demons <doubt, fear> step up when I get bold. I will eventually succeed because I am committed.

I'm sure you will correct me if I'm wrong. I think you want to believe these things are possible. You just want proof up front. If I'm wrong, you'll just brand me as an idiot or, If I'm right, someday you'll be sending a similar message. Miracles occur in my life because I believe they do!

J. Gookin

reply: I won't brand you as anything. You can't help yourself any more than I can. I wish you well, but must insist that being open-minded is not the same as believing whatever makes you feel good. Nor is a person closed-minded simply because they won't cut you some slack on things like "manifesting." Some of us have come to our beliefs after some examination of the issues. We're not closed-minded simply because we won't validate your beliefs.

19 Nov 2000

Having read your views relating to Manifesting, I find it amusingly ironic that one of your final criticisms of this practice is that it involves "a lot of . . . selective thinking." Hmm, coincidence . . . I think not.

Granted, there are a few bad apples out there: the woman who speaks to her garage door is definitely not practicing manifestation and I have never, would never and wil



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the Marfa lights

The Marfa lights are lights which are visible from a viewing area about 10 miles east of the town of [Marfa, Texas](#). They are the main tourist attraction in the area. The lights are said to appear to bounce around in the sky, vanish and re-appear, and thus are considered a mystery by some. To others, the lights are not a mystery. They are [ghosts](#) or swamp gas or radioactive bursts or [ball lightning](#) or navigational lights for space [aliens](#)

Skeptics who view the lights with strong binoculars claim that they are nothing more than the headlights and taillights of cars in the Chinati Mountains on U.S. highway 67.

further reading

- [The Marfa "Mystery" Lights](#) at Spook Central
- [Marfalights.com](#)
- ["The Marfa Lights - A Mystery"](#) by Rosemary Williams

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Last updated 03/24/03



[manifesting](#)

["Mars Effect"](#)



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occult statistics

Occult statistics are statistics used as the handmaiden of occult theorizing, in much the same way that philosophy was used by theology during medieval times, viz., to justify beliefs in supernatural beings and [occult](#) forces.

[Parapsychologists](#), [astrologers](#), theologians, and others who seek [anomalies](#) to guide them to transpersonal wisdom and insight into the true nature of the universe, are now able to use computers to do extremely complex statistical analyses of monumental masses of data. When they find a statistically significant correlation between or among variables, they are extremely impressed and consider the discovery to be proof of the occult or the supernatural. To the occult statistician there is no such thing as a [spurious correlation](#).

For example, [William Dembski's](#) *The Design Inference: Eliminating Chance through Small Probabilities* is said to "provide a mathematical foundation for the types of statistical inferences parapsychologists use to identify paranormal phenomena. In particular, the book shows how to deal with statistical experiments whose p-values are extremely small (like those that regularly come up in parapsychology experiments). This work is clearly relevant to Carl Jung's idea of [synchronicity](#). [It] promises to put synchronicity on a solid scientific footing" (Rabi Gupta, personal correspondence).

Likewise, [The Princeton Engineering Anomalies Research](#) program led by Robert Jahn, Dean of the School of Engineering and Applied Science, claims that in their experiments where human operators try to use their minds to influence a variety of mechanical, optical, acoustical, and fluid devices, they have gotten results that can't be due to chance and "can only be attributed to the influence of the human operators."

Legions of parapsychologists, led by such generals as [Charles Tart](#) and [Dean Radin](#), have also appealed to statistical anomalies as proof of [ESP](#). Statistician Jessica Utts of the University of California at Davis [gave her imprimatur](#) to U.S. government studies of ESP and [remote viewing](#). Many occultists have claimed that certain [dreams](#) must be [clairvoyant](#) and cannot be explained by coincidence because they defy the laws of probability.

It was not long ago that [astrologers](#) were claiming that Gauquelin had found the Holy Grail with his statistics showing the so-called "[Mars effect](#)." More recently, millionaire playboy Gunter Sachs published *Die Akte Astrologie*, which uses data analyzed by professors of statistics at the University of

Munich [to prove astrology is true.](#)

Obviously, this list could go on and on, and could include the [Bible Code](#) and various proofs of the existence of God on the grounds of improbability that chance could explain the nature of the universe or some complex aspect of it such as the genetic code.

skeptics unimpressed by occult stats

Skeptics are unimpressed with arguments that assert improbabilities for what has already happened. Whatever has already happened is obviously not an impossible event. Accurately calculating the odds of either the genetic code or the universe occurring by "chance," i.e., by natural laws alone without the [design](#) of a divine being, is impossible. Analogies to a monkey typing up *Hamlet* by chance, or to a *Mona Lisa* being "created" by nature, are irrelevant and notably without impact on skeptics.

Skeptics are not very impressed by statistical anomalies generated by those in quest of occult forces. Sometimes skeptics have discovered that the statistics were generated by incompetent or fraudulent means, e.g., the work of Walter J. Levy at Rhine's Institute of Parapsychology (Williams 191, 319). The history of ESP research is a paradigm of dishonesty and incompetence (Rawcliffe, Randi). Skeptics have noted many times while investigating the statistical claims of paranormal researchers that there are often significant problems with [subjective validation](#), [confirmation bias](#), [optional starting and stopping](#), [the clustering illusion](#), [the regressive fallacy](#), etc.

Sometimes the variables being correlated are ambiguous or vaguely defined, if defined at all, so that practically anything can count in support of the occult hypothesis. What is a ["great" athlete](#) or a ["rebel"](#)? Sometimes the methods of finding patterns are deceptive and inappropriate, e.g., finding hidden messages in texts. As John Ruscio notes, "If you look in a fantastic number of places, and count anything that you stumble upon as supportive evidence, you are guaranteed to discover meaning where none exists" (45).

Skeptics have noted that many times something seems to be statistically improbable when, in fact, it is not improbable at all. Some spurious correlations are due to lack of clarity regarding the variables; others are due to incorrect calculation of the odds. Both errors are common occurrences regarding so-called [clairvoyant dreams](#).

Finally, skeptics are unimpressed with artificially evoked statistical anomalies because such anomalies are expected to occur with some frequency given the vast number of trials that are made.

Correlating just a couple dozen variables with one another

will produce a matrix containing nearly 300 correlation coefficients. By convention, results that occur at a level expected by chance just 5 percent of the time are called "statistically significant." We can therefore expect about fifteen spuriously significant correlations within every matrix of 300 (Ruscio, 45).

Each of those spurious correlations is a temptation to see causal connections where there are none and to engage in [post hoc theorizing](#) to explain non-existent mysterious forces.

See related entries on [Bible Code](#), [the clustering illusion](#), [confirmation bias](#), [ESP](#), [the Forer effect](#), [law of really large numbers](#), ["Mars effect," numerology](#), [optional starting and stopping](#), [post hoc fallacy](#), [the regressive fallacy](#), [remote viewing](#) and [selective thinking](#).

further reading

- [STATS - Statistics and the Media](#)
- [The Evidence for Psychic Functioning: Claims vs. Reality](#) by Ray Hyman
- [Number Watch](#) - **All about the scares, scams, junk, panics, and flummery cooked up by the media, politicians, bureaucrats, so-called scientists and others who try to confuse you with wrong numbers.**
- [Coincidences: Remarkable or Random?](#) by Bruce Martin

[Gilovich, Thomas. *How We Know What Isn't So: The Fallibility of Human Reason in Everyday Life* \(New York: The Free Press, 1993\).](#)

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reader comments:

massage therapy

21 Jul 2000

I found much of your site pleasing (and amusing), but I am disheartened by your description of massage therapy. Your current write-up on massage therapy is misleading, since the definition at its center is faulty.

I am a student of massage therapy at the [Center for Massage and Natural Health in Asheville, NC](#). We will graduate with a certification in massage therapy; we will be eligible to take the NCBTMB when we complete the course. And about half of the class members are nurses, physical therapists, and occupational therapists who are learning so that they may physically help, not psychically heal, their patients.

reply: Your curriculum indicates that you are being trained to do both physical and metaphysical healing.

Our studies center around anatomy, physiology, and Swedish massage. The emphasis is on the physical and scientific. Other modalities, including "mystical" modalities like energy work, are included in the curriculum, but they are not by any means the foundation of what we learn--or the foundation of massage therapy as a whole.

reply: Whether they are the foundation or not, they are part of the curriculum, along with 182 hours in anatomy, physiology, pathology and kinesiology. Your curriculum includes Swedish massage, [Cranio-Sacral Therapy](#), Lymphatic Drainage Therapy, [Reflexology](#), Relaxation Skills, [Energy Work](#), [Aromatherapy](#), Herbology, as well as an introduction to [Eastern Philosophy](#), [Chinese Medicine](#) and Shiatsu (Chinese Acupressure).

Your blanket statement that massage therapy is "a massage which includes a metaphysical explanation usually couched in terms of 'balancing' some sort of 'energy'" is blatantly inaccurate. Massage therapy is massage for a purpose--usually for wellness, recovery from injury, or relaxation.

reply: Your course of study tells a different story. Note that I don't claim that metaphysics is *all* you study, but it is part of the curriculum whether you choose to ignore it or not.

Your later statement that "Despite the emphasis on balancing energy, none of the practice questions provided by the NCBTMB involve metaphysics" is true--the board exams don't involve metaphysics because massage therapy isn't based on metaphysics.

reply: I don't say that massage therapy is based on metaphysics, only that the two are treated as inseparable in massage therapy.

Most books, journals, and articles on massage--at least those that I have read--center on the physical, the real, and, yes, sometimes the medically unproven. Specific articles on specific modalities like Reiki and Therapeutic Touch focus on the mystical, but they are not the core foundation of massage therapy.

I understand your efforts to educate the public on scams, quackery, and myths. But your basic definition of massage therapy is inaccurate. I agree with your statements that many massage therapy claims are unproven, and I have no problem with arguments built around that fact. It appears that you base your definitions on minimal contact with a few therapists, who are probably therapists who focus on the more metaphysical modalities. Just as cynics warn others to be careful who they choose as a source of information, you should be careful when selecting sources for your pages.

Tracy Wilson

reply: I agree that there is difference between massage therapy which is grounded in physiology and other physical sciences and experience, and therapy which is grounded in hocus-pocus metaphysical gibberish. In any case, it seems to me that you should be happy that I link your profession with Eastern philosophy, since the public seems to be seeking more and more for some philosophy and magic to take along with their traditional medicine.

25 May 1999

First, may I say I enjoy your site very much, although I have read only a portion of it so far.

Both my parents were medical doctors, and I was raised with an unusually high level of suspicion for alternative so-called medicines, but I was surprised to see Massage Therapy listed among the spookier alternative therapies. I understood better when I read the entry, which limited massage therapy by definition to massages which included metaphysical explanations.

Perhaps this is a national difference (I live in British Columbia, Canada) but massage therapy here is promoted as a primarily physical therapy for loosening muscles tightened by injury or overuse, for circulatory problems, that sort of thing - often as an adjunct to active therapies, such as stretching exercises. All

of that seems sensible enough to me, and consistent with what I understand to be the mechanisms of circulation and muscle contraction.

It does seem to be the case that massage therapists often support some of the "unblocking" and "balancing" theories, but I am inclined to put those in the category of private beliefs and sympathies, and in some cases, of communicating with their clients by way of metaphor.

At any rate, my suggestion would be that massage therapy which does not depend on or incorporate metaphysical theory be differentiated in your entry. The metaphysical theories, as far as I'm concerned, deserve all the scepticism you can apply.

By the way, since I think baseline biases are relevant in these things, I should mention that I am not a health care professional. Actually I am a lawyer whose practice includes a fair bit of personal injury defense, and I run across a lot of renegade therapies that people want insurance companies to fund (ever heard of Feldenkrais? thermography?) I am immensely grateful that relatively few of the ones you mention have found their way north of the border!

Thanks again for your provocative and endlessly interesting website.

Margaret Hollis

11 Sep 1996

Your definition of Ortho-Bionomy is not even close. It has almost nothing to do with contacting trigger points (we prefer to use the word "indicator points").

reply: I agree, "indicator points" is much preferable to "trigger points." It's much more precise and scientific and not as likely to be confused with Roy Rogers.

It has to do with facilitating self-correcting reflexes through positioning, facilitated movement, isometrics, and other methods.

Richard Valasek, Advanced Instructor, Honolulu

reply: Well, I am glad someone is facilitating those self-correcting reflexes or else they might stop self-correcting and begin rebelling or opening their own ortho-bionomy clinics. I will notify Karen Khamashta, our local massage therapist who is spreading these vicious lies about your field, that she is wrong, wrong, wrong. And I will print your letter so the world will know that ortho-bionomy has to do with positioning, facilitated movement and isometrics, not contacting trigger points.

8 Dec 1996

I am a registered massage therapist in Texas. I do a combination of Swedish massage (mainly for relaxation) and Neuromuscular Therapy (NMT - for pain relief). I agree with you (surprise!). Touch and soft tissue manipulation are soothing, relaxing, pleasurable, stress relieving, pain relieving, etc. It is physical, not magical. I think it does the massage profession a disservice when some practitioners go overboard on what I call voodoo. It scares away many average folks who could benefit from the positive effects of massage.

*Of course, I do have some clients who espouse their own New Age beliefs, and I do not try to dissuade them. My main concern in the area of New Age massage are techniques designed to evoke an emotional response which is supposed to be healing. This type of therapy **may** be useful with a highly trained psychotherapist in attendance to handle disturbing images that surface, but I personally know no massage therapists who have any training in this regard. My massage training focused on anatomy, physiology, and massage technique and I think we should stick with what we know. After all, massage is already a **wonderful** thing. Relax & enjoy!*

Philippa Dodson



[massage therapy](#)

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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Readers are encouraged to send *Mass Media Bunk* material to:

btcarrol@skepdic.com

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

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June 23, 2001. The Learning Channel's "Atlantis in the Andes" followed the vision of a former British military cartographer who reads Plato's myth of [Atlantis](#) as a literal depiction of a country (rather than as a story with a moral message) and who has found a place in the Andes that matches, more or less, the description. He was able to make things fit, more or less, by dividing Plato's unit of measurement in half and offering an explanation of this alteration in terms of different latitudes and longitudes justifying it. Things that didn't fit, he ignored. For instance, he made no effort to explain why philosophers and classicists understand the [Timaeus](#) and [Critias](#) as another of Plato's stories used to discuss the issue of the ideal society. He doesn't explain the nine thousand year gap during which nobody in Greece or Egypt (where the story allegedly originated) mentions the battle of Athens with Atlantis. He did hint at an explanation as to how Plato's source could have such detailed knowledge of a country across the Atlantic Ocean: he suggests the ancient South Americans sailed to Egypt in reed boats, similar to those used on lake [Titicaca](#) today. In fact, he claims that the ancient "Atlanteans" had an inland port and were masters of the high seas some nine-thousand years ago. The fact that there is little supportive evidence for this notion was ignored. (A native of the Titicaca region who believes his ancestors were masters of the high seas and who will one day build a reed boat and do a [Thor Heyerdahl](#) does not count as strong supportive evidence.) The show was a great study in [confirmation bias](#) and how, if you are clever enough, you can find evidence to support the literal truth of just about any story. Those who produced the show were no doubt influenced by the fact that speculative or "alternative" archaeology sells. It was mentioned, but little was made of it, that evidence of [cocaine](#) and [tobacco](#) have been found during exams of mummified pharaohs, yet those products did not originate in Egypt. No mention was made that these findings are controversial and could be due to contamination by earlier examiners or could represent chemicals from products available in Egypt or to Egypt via one of the trade routes, which most likely did not include sailing across the Pacific Ocean to South America.

If the Pharaohs or other Egyptians did use cocaine or tobacco, it is odd that no depiction is made of it in their tombs or on their papyrus sheets.

I look forward to the next program in this series: The Discovery of Plato's Cave in Aboriginal Australia.

reader comments

Thanks for your review of TLC's programs. I did see them in the TV listings, but declined the opportunity to view them. I have found many of TLC's programs touching on "paranormal" subjects to lack

almost any kind of skepticism. I wonder how many other viewers missed a good program because they've grown to mistrust TLC. The fact that they follow the good with the bad doesn't help inspire new confidence either.

Do you think that the market for good, honest, skeptical shows about "paranormal" subjects is really too small to merit the time and money spent on un-skeptical shows, or do you think it is cowardice on the part of the programming directors that prevents them from making less credulous programs the norm? Do you think that The Skeptic's Network (TSN) could be a viable channel someday if someone were brave enough to pitch it?

take care,

Karl

reply: TSN, The Skeptic's Network a viable channel? I doubt it, but we shouldn't be cynical as well as skeptical. Michael Shermer's ["Exploring the Unknown"](#) series has been picked up by Fox Family Channel (Friday 10 pm). Randi has had a few specials shown on public television, where he debunks psychics, paranormal researchers and fraudulent preachers. And [Scientific American Frontiers](#) (also on public television) debunked alien autopsies, dowsing and a few other items. If the programs are entertaining, skeptical programs can compete with unskeptical shows on paranormal or occult subjects. However, producers don't want to offend large numbers of viewers and any program which demonstrates that millions of people are irrational or idiots for believing in alien abductions, ESP, miracle cures from ancient China or ghosts talking to charlatans, is considered a bit offensive. I don't consider it offensive but some others do. Unfortunately, they're the ones who watch TV several hours a day.

March 14, 2001. The headline at CNN.com/health reads: **Experiment supports Freud's theory of [repression](#)**. The article is from the Associated Press and no author is listed. It begins:

An experiment found that people can push an unwanted memory out of their minds, lending credence to Sigmund Freud's theory of repression.

In the study, college students who had memorized pairs of words were later shown half of the pair and were asked to either say the corresponding word or try to forget the second word.

The more the participants were asked to put words out of their minds, the less likely they were to recall the word later, even when paid to remember the word.

[Freud's theory of repression](#) is *not* centered on the notion that people can and do *consciously* forget things. Freud's theory is that the mind *unconsciously* forgets unpleasant, traumatic events such as sexual abuse. These repressed memories, according to Freud, can unconsciously affect a person's thoughts, desires and actions, and lead to neuroses. I thought that the journalist didn't know Freud's theory and so this piece of bunk about finding experimental support for it was due to the ignorance of some journalist. Apparently not.

The CNN.com article is based on a study published in the March 16, 2001, issue of *Nature*: "Suppressing unwanted memories by executive control" by Michael C. Anderson and Collin Green. Their article begins

Freud proposed that unwanted memories can be forgotten by pushing them into the unconscious, a process called repression. The existence of repression has remained controversial for more than a century....*

I think these claims are misleading. Freud emphasized the *unconscious* repression of unpleasant memories. That theory is controversial because there is only weak empirical evidence for it. (See Daniel Schacter's [Searching for Memory](#), chapter 9, for a discussion of the research in this area. Most research supports the notion that the stronger the emotional experience, the more likely it is that one will remember it.) But there is a large amount of anecdotal and scientific evidence in support of the notion that we *consciously* repress unpleasant memories (as there is that we unconsciously forget *pleasant* things that unconsciously affect our thoughts and actions).

Another article in the same issue of *Nature* is called "Cognitive neuroscience: Repression revisited" by Martin A. Conway, a psychologist at the University of Bristol in England. According to CNN.com, Conway claims that

....the Oregon research supports Freud's theory about the mind's ability to repress thoughts, especially painful or disturbing ones.

Even more surprising is that this occurs for unrelated pairs of words. How much stronger must this inhibition be for objects central to our thoughts and emotions.

I'd say this is an empirical matter, not to be decided by projection. The ability to consciously forget words isn't even of the same type as *unconsciously* forgetting painful *emotional* experiences. The research doesn't support Freud's theory; it supports a minor and uncontroversial part of that theory. Anderson, at least, recognized this. He is quoted by CNN.com as saying "What we really need to do is see if the same effect occurs for emotionally more significant material....That's a very important step we have to take. I wouldn't really say we've solved the repression problem here. It's just a good start."

A third article in the same issue--"Neurobiology: New memories from new neurons" by Jeffrey D. Macklis--and a fourth--"Neurogenesis in the adult is involved in the formation of trace memories" by Tracey J. Shors et al.--seem to have been confused by the AP writer or a CNN.com editor. The CNN.com article credits Shors with the

Macklis study which dealt with rats who "were not as likely to remember the connection between two events separated by time if given a drug that cuts the production of neurons in the hippocampus, an area of the brain used in the formation of some types of memory."

For those who might not be aware of it, the AP story notes that "the brains of both rats and humans have a hippocampus" and claims that "the study is the first to show in mammals that new neurons are used in memory formation, though previous work has shown the connection in birds." What this has to do with supporting Freud's theory of repression is anybody's guess.

March 6, 2001. I wasted an hour tonight watching [Larry King Live](#), whose guests included three so-called [psychics](#) who claim they get messages from [spirits](#) of the dead. The most obnoxious guest was [Sylvia Browne](#), who claimed she solved the N.Y. Trade Center bombing and many other crimes. She's made the same claims several times on the Montel Williams show. Paul Kurtz of [CSICOP](#), also on the "panel" (as Larry referred to his guests), noted that whenever [Browne's](#) claims as a [psychic detective](#) have been checked out they don't check out. No mention was made, however, of the [Brill's Content investigation of Browne](#):

***Brill's Content* has examined ten recent Montel Williams programs that highlighted Browne's work as a psychic detective (as opposed to her ideas about "the afterlife," for example), spanning 35 cases. In 21, the details were too vague to be verified. Of the remaining 14, law-enforcement officials or family members involved in the investigations say that Browne had played no useful role.**

"These guys don't solve cases, and the media consistently gets it wrong," says Michael Corn, an investigative producer for Inside Edition who produced a story last May debunking psychic detectives. Moreover, the FBI and the National Center for Missing & Exploited Children maintain that to their knowledge, psychic detectives have never helped solve a single missing-person case.

"Zero. They go on TV and I see how things go and what they claim but no, zero," says FBI agent Chris Whitcomb. "They may be remarkable in other ways, but the FBI does not use them."

Of course, there is no way to test her other claims because they are about spirits or are too vague. For example, one caller wanted some info on her parents' parents. Her parents were both adopted. Browne said she was getting the message "B-U-R-G-E-S-S" and Memphis. Nobody could use such data to test anything meaningful.

My favorite line of the night came from [James Van Praagh](#), who does not take criticism well. Skeptics, including rabbi [Shmuley Boteach](#) who joined Kurtz and former *Time* magazine chief science writer Leon Jaroff, were out to destroy people, said Van Praagh, while psychics were bringing good things to life. Well, skeptics are certainly out to destroy frauds like those on Larry King's show, and with good reason. The rabbi--friend of and co-author with [Uri Geller](#)--noted that the information the psychics were claiming to get from spirits was trivial, banal and

demeaning. Van Praagh disagreed because such "messages" prove there is an afterlife, which he takes to be a good thing. To tell the truth, I wouldn't mind an afterlife if it did not include characters like Van Praagh or Sylvia Browne, but it would be hell to have to spend eternity in the presence of such uninspiring charlatans.

The least obnoxious of the charlatans was [John Edward](#), which is not to say that he was not obnoxious. He has reduced the debate between [true believers](#) and skeptics to one of choosing your belief system. He doesn't care what criticism you throw at him because he doesn't respond to criticism, which, he believes, is just part of your belief system, which isn't his or his fans' belief system. He says he isn't interested in proving his powers but he agreed to be tested by a scientist in Arizona who, as Jaroff put it, believes in the tooth fairy (clinical psychologist and professor of psychiatry [Dr. Gary Schwartz](#) of the University of Arizona in Tucson, director of something called [Human Energy Systems Laboratory](#)). None would agree to be tested by [James Randi](#) because, as Browne put it, it would be a set up. (She claims she was set up by Randi before who tested her psychic powers some ten years ago. She said the subjects whose minds she was supposed to read were "Germanic" and didn't speak English. Why should that matter to a psychic? Anyway, [Randi has posted a reply](#), denying that Browne was set up and claiming she lied about the Germans. According to Randi, "Only one member of that audience of 140 persons was German, and [Browne] spent a full one minute and seven seconds rattling off guesses for him, then found out he was German, only after he told [her].")

I don't see how these three stooges (Browne, Van Praagh and Edward) could be tested, since they all claimed that just because the message they get from the spirit doesn't make sense doesn't mean it doesn't make sense. The subject might figure it out later or it might be a message from a different spirit! There is no way in hell anyone could prove these messages didn't come from somebody in heaven!

Other than a bit of self-promotion and name-calling, the program provided nothing but a minimum of entertainment and even less enlightenment. For good measure, Larry brought in Clint Van Zandt, a former FBI agent and profiler, who stumbled his way around to say that psychics have never helped solve a case but he wouldn't rule out using them because you should pursue every avenue yada yada yada. Van Zandt said he'd use psychics even though they're useless:

....if you exhaust law enforcement investigation, if you exhaust psychological profiling, if the victim's family or the police say, "I would like to try a psychic," I would say, anything that can help, and anything that would help a victim's family, I would not stand in the way.

Van Zandt was the chief negotiator in the [Waco fiasco](#). He even admitted that he had someone say the word 'Beelzebub' to [Koresh](#) over the phone because some psychic advised him to do so.

King also brought in Dale Graff, a retired physicist who worked with the military on [Stargate](#), a program devoted to the investigation of [remote viewing](#).

The ostensible reason for having this show was to discuss Jaroff's recent article in *Time* magazine, "[Talking to the Dead](#)," an article inspired by James Randi's exposé of Edward in a recent issue of *Skeptic* magazine. Like Randi and Shermer, Jaroff has no kind words for frauds. The article mentions that Inside Edition is planning an exposé of Edward by James Randi to be aired later this week. There is no mention of such on the Randi [homepage](#). (Inside Edition's website is a major waste of bandwidth requiring Flash 4.)

In my opinion, the rabbi came off as being the most rational and thoughtful. Jaroff and Kurtz seemed cynical, the former calling the psychics names and the latter asking for the television equivalent of a strip search of his unscientific opponents. (There is something unbecoming about a person asking a psychic to be reasonable and scientific. Would Kurtz be baffled if the psychics required him to be spiritual in order to engage them in dialogue?) Browne and Van Praagh came off as bitter and arrogant, though the latter provided the best hoot of the evening when he claimed that [Michael Shermer](#) said on Oprah that Van Praagh has a computer hooked up to every home in America. Van Zandt waffled whilst Graff waxed poetic about the powers of remote viewing and forces out there that are unknown to modern physics. I'm surprised he didn't have to leave early to catch his UFO home. Larry remained calm throughout and to his credit did not appear to be favoring one side or the other. ([Not everyone](#) agrees with my assessment.) He gave the skeptics every opportunity to respond to the true believers. But it became clear about thirty seconds into the program that nothing very interesting or important was going to happen in the next hour. If the psychics truly are either suffering from delusions or are frauds, as I believe is most probably the case, how else could they respond to challenges from skeptics except with bitterness (Browne and Van Praagh) or indifference (Edward)? Any hope of a meaningful dialogue is as remote as the likelihood that the FBI knows who amongst them is spying for the enemy.

The rabbi simply noted that the psychics make pointless observation after pointless observation: if these psychics are truly getting messages from the dead then life truly is pointless because these messages prove life after death is for the terminally silly.

February 15, 2001. "If there's really a sucker born every minute, shouldn't Fox be America's No. 1 broadcaster by now?" I wish I had written that line, but I didn't. It comes from Ellen Gray of the [Philadelphia Daily News](#) in an article entitled "One false step for man? Fox dredges up 'conspiracy' that 1969 lunar landing was faked." This Fox program was much worse than the so-called Alien Autopsy film the network showed several years ago. Words like "shameless" and "despicable" come to mind to describe this latest panegyric to the cognitively challenged. The Fox show was little more than a soapbox for Bill Kaysing's moronic speculations ([We Never Went to the Moon](#), 1976). Kaysing thinks NASA intentionally burned to death astronauts Gus Grissom, Ed White and Roger Chaffee. He says NASA won't come clean about the deaths because the astronauts were killed because "they knew too much." About what? About how the whole space program was a fake. Right! If I were NASA and wanted my government to continue funding my fake program I'd burn three astronauts to death on the launching pad, too. What else would build more confidence in the program?

Kaysing's main "evidence" for believing the moon landings were faked prove only the man's ignorance. There are no stars in the NASA photos, notes Kaysing. Of

course there aren't, and if Kaysing had any knowledge at all about photography, he'd know why. There are no stars in the moon photos for the same reason you can't photograph stars in the daylight here on earth. For those who care about the truth, see [Jim Scotti's page](#) or [Phil Plait's](#) or [NASA's](#) or even the work of the [LunarAnomalies.com](#) people.

Fox is [shameless in its promotion of hoaxes](#) and its encouraging people to take seriously slanderous claptrap and ignorant drivel. They even brought in Mrs. Grissom and her son to insinuate that NASA was hiding something sinister from them regarding the fire that killed Gus Grissom and the other two astronauts. [thanks to Joe Littrell]

January 2, 2001. Acupuncture got a big boost from a couple of football announcers last night who noted during the Oregon State rout of Notre Dame that one of the OSU players had had back or leg pains that went away after acupuncture treatment that had been recommended by his coach. The announcers said that the player said that he never felt better and that he went back for more treatments, he thought so highly of them.

This kind of anecdote is powerful. I don't know how many people watched OSU thump ND, but some of them are probably calling an acupuncturist right now.

Of course, no one will ever hear a coach or an announcer say: *Johnny Winwon was treated for pain by an acupuncturist and there was no long-term improvement of his condition.*

Before consulting an acupuncturist based on a favorable anecdote, I would advise doing some reading on [regression](#), [confirmation bias](#) and the [post hoc fallacy](#).

December 26, 2000. Bob Salsberg of the Associated Press concluded his story about yesterday's partial solar eclipse with a quote from Lauren Likkell, an assistant professor of physics and astronomy at the University of Wisconsin-Eau Claire: "What are the odds of having a partial eclipse on the last Christmas Day of the millennium?"

I don't know, but they are probably about the same as the odds of 300 Chinese dying in a fire on Christmas and of President-elect Bush's daughter having an appendectomy, both of which happened yesterday.

One might ask *what are the odds of having a baby during a partial eclipse on the last Christmas Day of the millennium?* I have no idea, but I'll bet it happened.

Just about anything looks odd if you look through the wrong end of the telescope.



In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

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Mass Media Funk

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October 13, 1998. [Art Bell quits broadcasting.](#) In his farewell address, Bell said: "You may recall about a year ago... I told you that there was an event, a threatening terrible event occurred to my family, which I could not tell you about. Because of that event, and a succession of other events, what you're listening to right now, is my final broadcast on the air. This is it folks, I'm going off the air and will not return." Promises, promises.

[Art Bell](#) was a very popular overnight radio show host (locally, his show is on from 1 to 4 a.m.). His specialty was the guest who had been abducted by aliens or claimed to be the victim of some government conspiracy. Those who claim that they can't get a fair hearing for their grand ideas about [reverse speech](#) or how the CIA has planted microphones in our cereal, could count on Bell giving them a soapbox. If you claimed there was a conspiracy to silence you by the FBI, the CIA or the local girl scouts, you were assured a spot on Bell's show.

Bell is the one who, more than anyone else in the mass media, promoted a variety of rumors culminating in the idea that comet Hale-Bopp was being trailed by a spaceship. During Easter Week 1997, [39 members of the Heaven's Gate cult committed suicide](#) in the belief that the spaceship was coming to pick them up and take them "to a higher level."

By the way, Bell is not the only broadcaster who quit on October 13. The Virgin Mary has announced to Her chosen channeler Nancy Fowler that She has sent her last message to the homemaker from Conyers, Georgia. According to the Associated Press, more than 100,000 faithful devotees gasped and fell to their knees upon hearing "The future holds no concern to those who truly seek God and truly love and remain in His favor." Nothing could be more true.

This is not the first time the BVM has quit broadcasting to Earth on October 13. In 1917, she made her last appearance at [Fatima](#) on this day. The BVM apparently likes the number 13, for that was the favored date for each of her announcements to Ms. Fowler. Coincidence?

(July 8, 2002. [Update.](#) Nancy Fowler sues former associates for millions.)

(October 23, 1998. Update: Art Bell announced he will be back to work beginning Wednesday night, October 28th. He says the crisis still remains but it is a private, family matter.

Note: According to [NYPost.com](http://nypost.com), Bell quit the show to care for his suicidal son who had been sexually molested when he was 16 by a male teacher. The teacher is now serving a life sentence for sex and drug offenses.)

October 6, 1998. The Power of Belief, an ABC news special with John Stossel.

This was a very good survey of popular culture's fascination with many of the topics taken up in the *Skeptic's Dictionary*, such as "alternative" medicine, firewalking, psychic detectives, astrology, levitation, channeling, psychics, therapeutic touch, OBEs and NDEs, voodoo, and more. Stossel took a skeptical approach and gave ample time to James Randi and Michael Shermer to argue that true believers are fideists, i.e, they don't care what the evidence is, they believe because they want to believe.

To illustrate this point, Stossel gave ample coverage to Randi's "[Carlos](#)" hoax. In 1988, Randi trained 19-year-old José Alvarez, a young artist, to impersonate a mystical channeler for "Carlos," a 2000-year-old spirit from Venezuela. With the assistance of an Australian television station, Alvarez toured Australia and developed a large following. The hoax was done by Randi to demonstrate how easy it is to deceive people and how gullible and uncritical the mass media are when confronted with extraordinary claims.

Unfortunately, nobody on Stossel's show asked why these gullible believers do not believe in each other's delusions or why they limit themselves to just these, rather than other equally pleasant, delusions? [Wishful thinking](#), [cold reading](#), [communal reinforcement](#), [confirmation bias](#), [subjective validation](#) and [the placebo effect](#) go a long way towards explaining these cases of self-deception. But more emphasis might have been placed on why we use methods like little [Emily Rosa's](#) (who was also featured) to test claims. We use [double-blind, controlled, randomized studies](#) because we know it is easy to deceive ourselves and we must force ourselves to test our claims. Otherwise, we run the risk of deceiving ourselves into believing things that seem true but are just not so.

In short, the program was atypical in that it presented the skeptics in a strong light and the true believers in the dark, but the show would have been perfect simply by having a scientist like Ray Hyman explain not why people believe weird things but why we devise controlled tests for our beliefs and why having satisfied customers is not sufficient to justify a belief. A philosopher like Shermer might have been asked about [ad hoc hypotheses](#), [Occam's razor](#), [the post hoc fallacy](#), and why [testimonials](#) are of little scientific importance.

Nevertheless, the show was very good and if you want to encourage ABC to do more such shows contact them at <http://www.abcnews.com/onair/emailshows.html>

August 27, 1998. [BBC News reports](#) a story released earlier this month about researchers who think they have the answer to [spontaneous human combustion](#): the "wick-effect." Some bodies are devoured by flames fueled by their own body fat. The researchers tested their theory on an animal closely resembling a human's fat content, the pig. "Using a dead pig wrapped in cloth, they simulated a human body being burned over a long period and the charred effect was the same as in so-called

spontaneous human combustion." The researchers were even able to incinerate the bones of the pig by letting the fire smolder for several hours.

August 21, 1998. A dog with a reputation for being psychic is tested under controlled conditions and is found not to be psychic, according to Glenda Cooper of the Independent (UK). The British Journal of Psychology published a report by [Dr Richard Wiseman](#) and [Matthew Smith](#) of the University of Hertfordshire who tested "Jaytee," known as a clairvoyant terrier. The dog had become somewhat of celebrity after appearing on several television programs going to a window at home at the precise moment her owner, Pam Smart, decided to return home from some miles away. Under controlled conditions, Jaytee did not perform as expected. In one experiment, the dog did go to the window about the time Ms. Smart was deciding to return home. However, the investigators believe that the dog's behavior was more likely to a car pulling up in front of the house than to clairvoyance. Other experiments found that the dog would often go to the window and stay put for minutes at a time, but not when Ms. Smart was deciding to come home. It even went outside to the garden one time at the precise moment her owner was deciding to return home; however, it was determined the dog went out to vomit, not to greet her mistress. Skeptics are not surprised that under controlled conditions the psychic explanation appears to have been driven by [selective](#) and [wishful thinking](#). Parapsychologists are not surprised, either, because psychic powers always fail under controlled conditions. (See ["The Telepathic Terrier"](#) by D. Trull)

August 19, 1998. An Associated Press story out of Concord, New Hampshire, today reports that Bill Morse has sued teacher Lucille Corriveau on charges "she caused him and his wife great emotional distress and invaded their privacy when she handed them a letter purporting to contain a message from their dead son." The Morse's son Sam was 10-years old when he drowned two years ago. Mr. Morse has also sued the Dunbarton School District for failing to fire Corriveau. Corriveau has countersued. She says she was defamed by the Morses when they passed out a flier saying "This woman RAPED my son." The teacher apparently gave the Morses a letter purportedly containing a message dictated to her by Sam. The message said that Sam and two other children who had died wanted Corriveau to know that she was "their idol."

Charles Douglas, the Morses' lawyer, claims the school district knew that Corriveau engaged in [channeling](#), [séances](#), and other [paranormal](#) activities in attempts to communicate with dead students. He asked the school district for any psychological evaluations of Corriveau and wanted to know if she was being treated for mental problems.

The teacher's lawyer, Fred Desmarais, says that his client can't explain how she got the message, nor should her client's doctor-patient confidentiality be broached.

August 13, 1998. [An Associated Press story](#) today reports on the disciplining of a prominent psychiatrist by the State of Illinois. Dr. Bennett Braun is accused of convincing a patient that she had 300 personalities, among them a child molester, a high priestess of a satanic cult, and a cannibal. Braun is the founder of the International Society for the Study of Disassociation. The patient claims that she was incorrectly diagnosed with [multiple personality disorder](#) and spent more than two

years in a psychiatric ward. She said her treatment included sedatives and other drugs, as well as [hypnosis](#). She claims she was sometimes restrained with leather straps to stimulate [abuse memories](#). Braun and another psychiatrist at Rush-Presbyterian-St. Luke's Hospital, Elva Poznanski, also persuaded the patient to hospitalize her two healthy children, then ages 4 and 5, for almost three years. The patient told the *Chicago Tribune*: "I began to add a few things up and realized there was no way I could come from a little town in Iowa, be eating 2,000 people a year, and nobody said anything about it."

In November, the patient won \$10.6 million in a lawsuit against Braun, Rush-Presbyterian-St. Luke's Hospital, and Poznanski. The patient apparently was suffering from depression after the birth of her second child.

July 12, 1998. Good summer reading: Richard Ellis, [Imagining Atlantis](#) (New York: Knopf, 1998) and now in paperback, Timothy Ferris, [The Whole Shebang : A State-Of-The-Universe's Report](#) (Touchstone, 1998).

June 30, 1998. [Science wrecks a good ghost story](#) By ROBERT MATTHEWS.

May 3, 1998. [Sandia Labs published the results of a double-blind test done on the DKL LifeGuard](#), an item featured in [Too Good To Be True](#) a few months ago. The results confirmed our suspicions of the uselessness of this device which its manufacturers claim can detect a human heartbeat through concrete walls, steel bulkheads, heavy foliage, earthworks, or up to 10 feet of water. Test results demonstrated beyond any reasonable doubt that the device only "works" if the operator has prior knowledge of where his target is. Without prior knowledge, the operator could do no better than expected by chance. There is hope, however, for the manufacturers. Scientists believe that such a device would work if only DKL would change the direction of its antenna and lengthen it to three times the diameter of the earth. I wonder if the *Washington Post* will consider doing a follow-up story to [the promotional piece written by Beth Berselli last January](#).

April 30, 1998. Praying over a child, rather than seeking medical care, can be lethal. A study published in *Pediatrics* (April 6, 1998), the journal of the American Academy of Pediatrics, found that 140 of 172 child deaths were due to conditions which have a treatment survival rate of greater than 90 percent. In other words, more than 80 percent of the deaths probably could have been avoided had the parents of the dead children sought traditional medical care. The study examined 172 child deaths in faith healing families from 1975 to 1995. It was done jointly by the University of California at San Diego and Children's Healthcare Is a Legal Duty, a group out of Sioux City, Iowa.

The study concluded that eighteen other children would have had better than a 50 percent chance of survival with treatment, and all but three of the children would likely have benefited from medical help. (submitted by Don Rush)

April 14, 1998. The Associated Press reported today that [Rama](#) now sleeps with the fishes or is snowboarding in nirvana. Frederick P. Lenz III was found dead in the water near his Long Island home. Police said he drowned or died of a drug overdose. (reported by Aaron R. White)

April 3, 1998. *20/20* on ABC. [Michael Shermer](#), author of [Why People Believe Weird Things](#) and founder of [Skeptic](#) magazine, got another chance to debunk author/mentalist [James Van Praagh](#). The latter specializes in talking to the dead and claims he is a contact for just about anyone's dead relative. On *20/20* Van Praagh extended his service to all dead pets. Shermer did as good a job as anyone could do in pointing out the tricks Van Praagh uses. (1) He fishes for information by asking question after question until he eventually gets a response he can pursue further. The audience quickly forgets or ignores all the questions that went nowhere and easily remember the "hits". (2) Many of his questions are very general and relate to obvious things like heirlooms. [[See Mass Media Bunk](#)] (3) Many of the "hits" aren't really hits at all. For example, when he was fishing with the name "Charlie" he began the questioning with a man in the front row of a very small group of people assembled by *20/20*. The man was blank on the word "Charlie" so he extended the name to the group at large. Finally, a woman in the second row said she had once had a dog named Charlie. The dog was dead, so the interviewer considered it a "hit" until Shermer had him show the tape again and pointed out that the question had been aimed at a man but a woman in the group finally bit that piece of bait. Wasn't it odd, noted Shermer, that this great psychic couldn't tell the difference between a canine and a human spirit. When asked about this, Van Praagh announced that animals have souls, too, and they continue to exist after death. He explained that hearing the spirits is like having a conversation under water, which is a perfect segue to the third point. (4) Van Praagh has many more "misses" than he has "hits", but only a skeptic would notice. (5) Some of his "special hits", like telling Barbara Walters that her father had a glass eye--a fact which impressed Walters--are likely due to having done his homework. The reporter told Barbara that it had taken him only a few minutes to discover that information from sources available to anyone. Another "special hit"--seeing a young woman's dead grandmother behind her, was shown to have been information he got by asking questions during a break in the programming an hour earlier. (6) He plays on the emotions. Many of the people who appreciate van Praagh are very emotional and have a very strong desire to communicate with the dead. He seems to fulfill their wish and they are very grateful.

When asked what harm their could be in helping people work through the grieving process, Shermer noted that the people who are devoted to Van Praagh are not going through the normal grieving process. He isn't helping them with anything. He is defrauding them, lying to them. Van Praagh denies he is a fraud and claims that he is doing God's work. He says he is helping people, while his critics are "negative" and "not open to the spirit world." He even accused *20/20* of a set-up because he didn't have great success with the small audience they had assembled for him to work. Van Praagh was assured that those selected had a genuine desire to talk to the dead. He was asked, however, why it would matter whether the audience consisted of believers or skeptics. Van Praagh claimed that skeptics by their very skepticism block the spirits from communicating. This [ad hoc hypothesis](#) is one we've heard before from psychics and psychic researchers.

20/20 was fair and did an excellent job of letting Van Praagh perform to the best of his ability, letting a skilled skeptic criticize the performance, and allowing both to respond to the other's claims. When the segment was finished, Barbara Walters asked Hugh Downs what he thought about Van Praagh. Downs put it very succinctly: "I don't believe him."

March 31, 1998. [Associated Press article by Brenda Coleman](#). Emily Rosa, a nine-year old, has published an article in the *The Journal of the American Medical Association* which debunks one of the main claims of therapeutic touch. "Those who practice the technique say an energy field emanates from every person and is detectable above the skin. The healer moves his or her hands over the patient's body to modify the field. Touching the patient isn't necessary....Emily set up a cardboard screen through which practitioners put their hands. With their sight blocked, she asked them to identify which of their hands was near one of hers." [\[Coleman\]](#) "The practitioners correctly located Emily's hand only 122 (44%) out of 280 trials, which is no better than would be expected by guessing. A score of 50% would be expected through chance alone." [\[Stephen Barrett\]](#)

March 31, 1998. *Sacramento Bee*. The United States Supreme Court upheld the ban on the use of polygraph results in military courts. Justice Thomas, speaking for the court said: "There is simply no consensus that polygraph evidence is reliable....the scientific community remains extremely polarized about the reliability of polygraph techniques....There is simply no way to know in a particular case whether a polygraph examiner's conclusion is accurate." The case involved an airman who wanted to introduce in his defense his so-called "lie detector" test results. He was charged with using drugs and writing bad checks. The Air Force, by the way, conducted over 35,000 polygraph tests in one year, according to the airman's attorney. He rightly asked, if the tests are so unreliable, why does the Air Force use them? Good question, but it should be directed at the Air Force, not the Supreme Court. [\[read about it\]](#)

Jan. 7, 1998. *Sacramento Bee*, Hundreds of psychics were proved to be of no use in another crime investigation. In 1992 a 6-year old boy vanished from his home in rural Butte County, California. After an intensive search for the boy had turned up nothing, the family and sheriff's officials had examined the theories of more than 100 self-proclaimed psychics who had volunteered to assist in the case. The investigators should have spent the time combing the nearby hills instead of chasing after the "visions" of so-called "psychics". Three boys recently found a skull of a young boy while hiking on a trail within two miles of the missing boy's home. A search of the area led to the discovery of some more bones and some clothing. Nothing that was discovered gave any clues as to the cause of death. In fact, investigators have sent the skull to an FBI lab for a positive identification. Though the skull is consistent with it being that of the missing boy, it is possible it is not. Yet, the mother of the missing child declared: "It wasn't no mountain lion. The person who did this is going to pay for it." In fact, if the skull and other items turn out to be that of the missing boy, the evidence would be consistent with the child falling down a canyon and dying of natural causes, his body being dragged away and devoured by animals, including the mountain lion. There is no evidence that there was any foul play. How much influence did the psychics and mass media play in conjuring up the worst-case scenario of kidnapping, molestation, mutilation and murder which apparently still haunts the child's mother?

January 8, 1998. The *New England Journal of Medicine* reports that when calcium channel blockers (for high blood pressure) were linked to higher risk of heart attack, 96% of the doctors who authored defenses of the use of calcium channel blockers

had financial interests in the medication. Of those doctors who wrote neutral pieces on the medication, only 60% had financial ties to manufacturers. Only 37% of those who wrote critical articles on the use of calcium channel blockers also had a financial interest in the product. Is this a coincidence that one's thinking correlates with one's financial interest?

December 31, 1997. The terms of the 1993 closure agreement between the IRS and Scientology were revealed by Mark Rathbun, director of Scientology's "Religious Technology Center". For over twenty years, the IRS had tried to deny Scientology tax-exempt status as a religion. Scientologists responded with over 2,000 lawsuits against the IRS before it caved in and granted Scientology the same status as granted the Catholic Church and other religious organizations. Rathbun revealed that Scientology paid the IRS \$12.5 million for past taxes. In exchange, the IRS not only granted Scientology tax-exempt status, but also agreed to drop any and all audits it was doing on the Church

memories, like [London cabbies](#) who must know something like 25,000 streets and 1,400 landmarks of London. Their brains are larger than the average person. What's more, they may not have been born that way. Their brains may have grown after they reached adulthood and began developing their memories. Neuroscientists have discovered that the adult brain is very malleable, even to the point of [growing new brain cells](#). [Dr. Alvaro Pascual-Leone](#) and other neuroscientists have shown that the visual cortex processes the sense of touch in people born blind. In this program a young woman was blindfolded for five days and it was discovered that her [visual cortex started to take over tasks related to touch](#).

The most dramatic example of how malleable the brain is involved a young woman who was born with half a brain, the right half. Tasks usually taken on by the left hemisphere such as language and object recognition have been taken up by her right hemisphere. There has been a price, however, as her visual-spatial abilities are compromised. "It's as if the two abilities, linguistic and visual-spatial, had to duke it out for space in Michelle's brain- and language won."*

The final segment profiled [Gerry Edelman](#), Director of the Neurosciences Institute in San Diego, winner of the Nobel prize for his work in immunology, and now working on understanding the brain and consciousness.

The next program will be shown November 28th (8 pm EST) and will feature Super People. One segment will feature [memory training](#) and [Frank Felberbaum](#), president of Memory Training Systems, one of the world's leading [memory experts](#). We'll also learn about the 2000 [Memoriad](#), a national memory championship contest held each year in New York City, and meet two-time champion Tatiana Cooley.

The December 19th program is titled ["Life's Really Big Questions"](#) and will explore our origins, our planet's history, life on other planets, robots, and a conversation with [Daniel Dennett](#) on the nature of consciousness.

There are at least seven more [Scientific American programs](#) scheduled for early next year, seven more candles in the dark wasteland known as television. [Steve Allen](#) would be proud.

November 21, 2000. The December 2000 issue of *Consumer Reports* (CR) says that tests on St. John's wort were "reassuring." They tested 13 brands and all "contained a reasonably standardized dose of dianthrones." St. John's wort is a mood modifier popular among self-medicators who are looking for a pick-me-up with minimum side-effects. There is "fairly solid" evidence, says CR, that St. John's wort "can help people with clinically significant mood disorders." And the only major side effect is increased sensitivity to sunlight. CR does note that "self-treatment can be dangerous, particularly with depression, which causes some 20,000 reported suicides a year in the U.S." CR also notes that St. John's wort "decreases the effectiveness of a host of medications, including oral contraceptives, cholesterol-lowering statin drugs, beta-blockers, and calcium-channel blockers for high blood pressure and coronary heart disease, protease inhibitors for HIV infection, and many other prescription drugs."

CR also tested 12 brands of SAM-e (s-adenosyl-methionine) and found that

"manufacturers are generally producing a reasonably stable standardized product," though they found four examples of misleading labeling. SAM-e "helps cells regulate the brain chemicals dopamine and serotonin" and is also used by self-medicators as a mood elevator. CR notes that the side effects of SAM-e can include upset stomach, insomnia and mania. And it is not cheap, costing \$55-\$260/month for 400-mg daily dose.

Finally, CR reports that 13 of 15 brands of kava pills contained approximately the amount of kavalactones that their label said. Extract of the root of the kava plant has long been used by Pacific islanders. It allegedly relieves anxiety and elevates mood. "Kava can magnify the potency of other antianxiety medicines and reduce the effectiveness of several other drugs, notably Parkinson's drugs containing levodopa." Side effects include blurred vision and impaired coordination.

CR does warn those taking prescription drugs to consult with your doctor or pharmacist before self-medicating with herbs. There may be drug interactions and some of these could be [serious, even life-threatening](#).

November 17, 2000. [Dateline \(NBC\)](#) featured "Waking the Dead" with [John Edward](#), a [James Van Praagh](#) clone. In an attempt to be fair and complete in their open-minded evaluation of Edward's ability to channel "symbols" from the dead, correspondent John Hockenberry interviewed a "Harvard-trained" professor who is doing "scientific" studies of psychics, and Joe Nickell, CSICOP point man for all things supernatural and occult. Nickell was clear and concise, as usual, as he went through a brief litany of cold reading techniques used by Edward. Talk fast, ask a lot of questions (i.e., go fishing for details), be vague and suggestive ("I'm getting 'July' here. Anything significant about July? What about 8, the number 8, the 8th of the month, August, something."), know that most people die of heart disease or cancer and that jewelry is likely to be significant for most people ("I'm getting a ring here, anything important about a ring? I sense a watch, a bracelet, something on the wrist or arm."). In short, let the subjects reveal information and let them be the ones to fix something significant to your questions, phrases, words, etc. Watching Edward or Van Praagh is like watching someone throw feed to starving animals. These people are so desperate to make contact with their deceased loved ones that they'll bite at almost anything the "medium" throws at them. The misses, the questions and remarks that don't resonate with anyone, are quickly forgotten as the rapid fire continues without missing a beat even though the medium couldn't tell a male from a female or a dog from a person.

The "scientist" in this feature did a controlled study where he compared the abilities of alleged psychics, including Edward, and students from his university in Arizona. The "psychics" in the test did their routine with subjects trying to make contact with the dead, while the students were given a set list of questions to ask the subjects. The psychics performed significantly better than the students in getting "accurate" information. What did the "scientist" prove? He proved that the "psychics" were very good at [cold reading](#), while the students weren't. When asked what he thought, the "scientist" said something to the effect that *the data are not inconsistent with the hypothesis that the psychics were making contact with the dead*. Brilliant!

Hockenberry tried to be fair and open-minded. He gave Edward every opportunity to

demonstrate his stuff, but he also raised some serious doubts. For example, everybody in the group of subjects trying to make contact through Edward was blown away when Edward apparently started getting messages from the father of one of the NBC camera operators. Edward named the father and got the cameraman to cry when he asked about "a ring." The cameraman had put his ring in his dad's coffin. The surprise element was overwhelming for the subjects. What the subjects didn't know, and what the cameraman apparently didn't even remember, was that earlier that day he had been shooting footage of Edward doing ballroom dancing and had talked with the cameraman. Under questioning, Edward admitted that the cameraman had told him about his father's death. Rather than be embarrassed, Edward acted nonplussed and seemed to wonder what the big deal was. So he gathers information for his "readings". What's the big deal? He did get the ring part didn't he? Well, not exactly. He went fishing with the jewelry symbol, in this case the word 'ring', but the cameraman filled in all the details.

I have to admit that I was more impressed with Edward's cold reading abilities than with Van Praagh whom I've seen perform on television several times. And like Van Praagh, Edwards leaves many [satisfied customers](#), which raises the question asked on the program: what's the harm in this charade, if so many people are grateful and have their grief alleviated? Edward says he is not a grief counselor, but he is. He knows he couldn't keep his audience nor his paying customers if he started hearing bad things and left people more uncomfortable than when they came in. True, he is not as blatantly mushy as Van Praagh, but he obviously provided a great deal of comfort to some of the subjects in the program. So, where's the harm and why should skeptics criticize such work?

It is hard to convince the beneficiaries of a benevolent fraud that despite their satisfaction something wrong has gone on. Just because everybody leaves satisfied with few or no complaints does not make the activity proper. I think we can all probably justify lying once in a while to avoid hurting someone's feelings or to give them a lift. But systematic fraud for the benefit of people who can't accept that death is final or that the guilt they feel may be deserved is quite different. The idea that truth may be bent when it is unpleasant, or when a lie will have a less detrimental effect than the truth, is not a healthy one. The notion that truth is subjective and that there is no harm in letting some things be true for some people while they are false for others is not a healthy one.

I have written a lot in these pages about bad [psychotherapy](#), [bad medicine](#) and [pious frauds](#). Many of the therapies and "alternative" treatments I have attacked have been based on the premise that objective truth does not matter or that there is no such thing as objective truth. These therapists and "alternative healers" make no effort to separate fact from fiction, history from delusion, in their patients' stories. Some of the therapists even encourage fantasy and delusion as part of their treatment! They encourage their patients to dig for memories of events that may never have happened. The patients "remember" things that didn't occur. The patients are often satisfied customers when they are told that they have discovered the source of their problem. The therapists don't care whether the memories are accurate. These are the patients' truths even if they are false! And the "alternative healers" don't care if the testimonials of their happy clients are based upon scientific evidence that the "alternative" treatment was a real causal factor in their relief. What matters is that the

client *believes*. Such thinking seems behind the pious frauds who claim to be [stigmatic](#) or have [statues that weep blood](#), etc. *The end justifies the means* is a principle for a world with little or no respect for reason and careful thought. It is a principle for people who don't care about the truth unless it makes them feel good. I get a good amount of mail from such people. They rage at me because I won't validate their belief in an afterlife where they will be rejoined with mommy, daddy and their beloved dog or cat. The skeptic is the ultimate party pooper. If I lied to these people, they'd love me.

By encouraging "psychics" and belief in their extraordinary powers we encourage delusion for the sake of its benefits. That is quite different from acknowledging that delusions can sometimes have benefits. To encourage delusion is to increase the probability for more delusion, more fraud, more self-deception. It is to chip away at what little rationality is left in the world.

November 14, 2000. [ABC.News](#) reports that scientists, not [cryptozoologists](#), in Madagascar have discovered three previously unknown species of mouse lemurs, the world's smallest primate. Meanwhile, cryptozoologists were busy hunting down Bigfoot and Nessie, both last spotted traveling through the Bermuda Triangle, heading for Atlantis.

reader comments

19 Nov 2000

You seemed too proud of the fact that three new species of lemurs had been discovered, despite the fact it goes against previous skeptic statements that no new animals are left to be discovered. (If you find that statement false, remember it was uninformed skeptics who said it) You didn't hear a thing about a species of thought to be extinct horse recently found in Asia? Those 2 new species of antelope found in Vietnam? Why is it that the most heavily populated continent can have all these new animals and its such a blatant cryptozoologist lie that Yeti can still be running around Nepal?

This selective reporting that actually weakens the skeptics status quo cause more than defending it, and it is especially spotlighted in the bigfoot section. A number of letter writers including myself have told you exactly when and where John Chambers denied any Hoaxing, yet your response refers readers back to outdated speculation from years back. You have yet to address the Chambers denial directly, probably trying to save desperate face when you've been obviously beaten hands down and hope nobody will notice. Stop being a sore loser. Chambers denied the hoax in a direct quote. Now was he lying or kidding? And are you going to hide this under the rug again or admit you were wrong?

Bern Finnigan

reply: If you read my entry on [Bigfoot](#) you would see that I report Chambers' denial of hoaxing on the Patterson film. I also report who (Landis and Berger) made the claim that Chambers denies

and what that claim was. Who's the sore loser? You want me to report only one side--your side.

Who typically discovers new species of plants and animals, Bern? People like yourself out hunting for Yeti? I don't think so. But, if I'm wrong, send me a list of the plants and animals you have discovered and I will post them with an apology.

Bern replies

I can always tell when someone gets under your skin when you dump the pretext of honest debate and dive into personal attacks. Not very professional, if I may say so. Some of us are above that sort of thing.

reply: I admit. Being falsely accused does get under my skin.

But seriously, I don't look for yeti, I merely point out the numerous flaws in the arguments of the cynics. Such as this letter of yours, where you infer no cryptozoologist has ever accomplished anything of use. Since I'm acting in proxy of the cryptozoologists, once I post a list of what they have done (a lengthy list, but I'll keep it to the point; [Dr. Krantz](#) has reconstructed the skull of the Asian gigantipithicus, [Dr. Meldrum](#) is breaking ground in the origin of human bipedalism, etc.) will you apologize to them, or sweep your bigotry under the rug again?

When they find Yeti, I'll apologize profusely.

November 7, 2000. Crop circle prankster Matthew Williams, a 29-year old pagan, was fined £100 and ordered to pay £40 costs for damaging a corn crop which he decorated with a seven-point star. He said he did it "to prove wrong an academic who said only aliens could make such elaborate designs."

Williams accused "academics" of trying to cash in on people's gullibility by claiming that aliens are making the circles. However, Williams is cashing in on the craze himself. "Williams set up his own magazine, *Truthseekers Review*, devoted to crop circles and has now opened a sister website. He has also appeared on television to talk about the subject and is suspected of being responsible for the creation of several circles."

"The general public are being conned," said Williams. "The majority of crop circles are man-made, although I do believe some are the work of the paranormal." Right. [thanks to J. Gravelle]

November 2, 2000. A Cook County judge warned an 8-year old girl and her 12-year old sister that they would go to Hell if they lied. He didn't do this at Sunday school, but from the bench in a secular, not an ecclesiastical, courtroom. Judge James T. Ryan was no doubt referring to the secular, rather than the religious, Hell. The girl's mother, Diane Tuzzolino, lost a wrongful death suit involving her poodle but she

seemed more upset with the judge scaring her children. "Never in my life," she said, "have I heard a judge say that, even to an adult."
[thanks to J. Gravelle and the *Chicago Sun-Times*]

November 2, 2000. Italian scientists studying the effects of exposure to extremely low frequency electromagnetic fields (ELF-EMF) have found that ovarian follicles in mice fail to develop properly in many cases. The results of their study are published in the November issue of [Human Reproduction](#):

Pre-antral follicles were cultured for 5 days and exposed to ELF-EMF at the frequencies of 33 or 50 Hz. ELF-EMF application did not affect follicular growth over a 3 day culture period, but on day 5 the growth of 33 Hz-exposed follicles was significantly reduced when compared with controls, while the 50 Hz-exposed follicles were not significantly affected. However, ELF-EMF severely impaired antrum formation at both frequencies, as $79 \pm 3\%$ of control follicles developed antral cavities compared with $30 \pm 6\%$ and $51.6 \pm 4\%$ of 33 or 50 Hz-exposed follicles respectively. The follicles with failed antrum formation showed lower oestradiol release and granulosa cell DNA synthesis, but these effects were not related to granulosa cell apoptosis. Furthermore, a high percentage of the in-vitro grown oocytes obtained from exposed follicles had a reduced ability to resume meiotic maturation when compared with controls.

The authors concluded

These results suggest that ELF-EMF exposure might impair mammalian female reproductive potentiality by reducing the capacity of the follicles to reach a developmental stage that is an essential pre-requisite for reproductive success.

In America, electronic devices and circuits commonly run at 60Hz.
[thanks to Florin Clapa]

October 31, 2000. A federal judge upheld [Virginia's "minute of silence" law](#), ruling that it does not violate the First Amendment. The American Civil Liberties Union argued unsuccessfully that the law, which requires a minute of silence of public school students at the beginning of the school day, was an attempt to introduce religion into the public schools. Judge Claude Hilton said the law has a secular purpose. Apparently, the students are free to worship the devil or to think about murdering their teacher, raping a nun, or molesting their neighbors during the mandatory minute of silence. The law does not provide that any guidance be given in how to use the mandatory minute. It is up to the student. The ruling will be appealed and is likely to go to the U.S. Supreme Court, which lately has not looked favorably upon sneaky attempts to inject religion into public school activities.
[thanks to Jon Henrik Gilhuus]

October 30, 2000. [CNN.com](#) has an article in their "career" section on occult occupations. The article features a "psychic" and a skeptic. The psychic tells her

story and how she's had this "gift" since she was a child, yada yada yada. The skeptic, Louis Manza, is a tenured faculty member with Lebanon Valley College (LVC) in Annville, Pennsylvania. He has a Ph.D. from City University of New York (CUNY) and a master's degree from CUNY's Brooklyn College, both in experimental psychology. Manza teaches a course at LVC called "Paranormal Phenomena -- A Critical Examination." In the course, he explains [cold reading](#) and [mentalism](#). He dismisses many psychics as frauds and explains the psychological mechanisms that motivate people to seek out such frauds. Dr. Manza also discusses the potential for harm from occultists:

Other than psychological damage -- that runs from fairly innocuous to fairly severe -- people might also spend lots of money on these things, money they could be spending on other things. You have potential medical problems, people going to alternative medicine or not taking their medicine or going to faith healers.

The danger is the public doesn't understand the science behind this. That's one of the reasons I decided to teach this class. I was so frustrated with the way people are.

I'm not going to change the world, but I might change one little corner. I don't want to convert every single person to skepticism, but if I can get 20 people per class to leave with a better appreciation for the science behind this, they might not be as likely to do what I consider to be dumb things later in life.

Sounds like the course should be a requirement.

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Robert Todd Carroll



[The Skeptic's Refuge](#)



[More Mass Media Funk](#)



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[The Skeptic's
Refuge](#)

In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

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October 25, 2001. This was a good week for skepticism in the media. Last Saturday the *Sacramento Bee's* [Jennifer Garza](#) did a piece on [firewalking](#) that noted the severe burns several participants walked away with, comforted perhaps by inane comments such as "I'm a Leo and I love fire" or "I love the idea of defying logic." Saturday evening, firewalking and other physical feats were discussed on "Science Mysteries: Physical Feats" shown on the Discovery Channel. This was in part a rehash of the film "Guru Busters," which followed members of the Indian Rationalist Association (IRA) as they go from village to village pretending to be [godmen](#) or fakirs. The IRA considers the godmen to be frauds who use trickery, legerdemain, conjuring, deceit, and other unfair means of convincing ignorant villagers that they possess miraculous powers. Some of the godmen gain international reputations like [Sai Baba](#), but most make a living from the offerings of villagers. The IRA firewalk and explain anyone can do it without a need for supernatural intervention. They walk on glass, lay on nails, pull cars with hooks poked through the flesh on their backs, jab long needles through their cheeks and tongues, etc. The goal of the IRA is to debunk the godmen and reduce superstition among their countrymen and women. They are obviously having some notable success, for the Indian media consult them regularly.

Another part of the "Physical Feats" program dealt with Tibetan Buddhist monks who can raise the temperature of their hands and feet by 15 degrees through "tummo", a kind of meditation, thereby enabling them to spend the night meditating outside in subzero weather. Martial arts masters also demonstrated amazing physical powers at smashing pieces of wood or concrete with their hands, feet, or shins. Some of these feats are truly difficult and require years of training and discipline, but they do not seem to be necessarily connected to anything spiritual.

Finally, NOVA's program on "Secrets of the Mind" was excellent. V. S. [Ramachandran's](#) work on the brain, based on patients with blindsight, phantom limb pain, anosognosia, and temporal lobe epilepsy. The latter case was the most interesting for skeptics, since it involved a young man who was having religious ecstasies because of his epilepsy. Ramachandran thinks that the part of the brain that identifies objects of experience as significant goes haywire in the religious experience so that *everything* from a grain of sand to a spider's web to spindrift blowing on the surface of the ocean become imbued with significance. Ramachandran's [Phantoms in the Brain : Probing the Mysteries of the Human Mind](#) (with Sandra Blakeslee) (Quill, 1999) discusses these fascinating cases and offers a glimpse into the nature of consciousness. The NOVA program also brought home the dilemma of treating someone whose disorder has the pleasant side effect of making him feel omnipotent and omniscient.

October 17, 2001. Eileen McNamara of the *Boston Globe* reports on the latest anthrax terrorist attacks in the United States, only she notes that the attacks have

been going on for three years with no arrests having been made and no public furor over the attacks. Why? Because the anthrax scares have been made against abortion providers. According to McNamara, "110 letters claiming to be laced with deadly bacteria....arrived at abortion clinics in 13 states this week....Since 1998, mail purporting to be laced with anthrax has been delivered to clinics in 16 states." The campaign of terror against the abortion clinics has gone virtually unnoticed by the press and the government. It certainly hasn't received the attention that attacks on the press and the government have received.

Gloria Feldt, the president of Planned Parenthood, notes that dealing with the terrorist threat of anthrax contamination has been a way of life at abortion clinics for several years. They have developed several protocols for dealing with the threat. She called Tom Ridge, our new director of Homeland Security, to offer him some tips. I wonder if he'll call her back? Probably right after [John Ashcroft](#) expresses his disgust at the terrorism.

McNamara's article is a reminder that America has its own religious fanatics who believe terror and murder are justified if done in the name of God. In its trademark blasphemous way, the [Onion](#) has jackhammered home the same message: the American Taliban's effort to rid the world of "evildoers" by terror and murder is wrong. Jesus is depicted as a pro-life terrorist who opens fire in an abortion clinic. The image is so startling that it may stifle the obvious message: Jesus wouldn't approve such evil.

Neither would Mohammed and neither should our government. Perhaps now is the time to deal with these evildoers at home. Make no mistake about it. We need to smoke them out and bring them to justice.

October 3, 2001. There was a full moon last night and nothing much happened out of the ordinary. In fact, the week has been fairly typical on the lunacy front. [Amway lost a court appeal](#) with Proctor and Gamble over rumors spread by several [Amway](#) agents that their competitor is run by a group of [devil worshippers](#). The Amway people claimed they were just exercising their First Amendment free speech rights when they spread false rumors about [P & G's logo](#) being a sign of Satan, who is worshipped at P & G. A lower court had ruled that lying to hurt the competition isn't protected speech and the [U.S. Supreme Court](#) agreed by refusing to hear and making no comment on Amway's appeal. The 5th U.S. Circuit Court of Appeals had ruled that speech is not protected by the First Amendment if the "speakers' motives in spreading the Satanism rumor were economic."

Some twenty years ago, several of Amway's devoted distributors began spreading the lie that the man in the moon used by P & G in their logo is actually Satan. The rumors included a claim that the president of P & G had gone public by announcing on a television show that he worshipped Satan. The absurdity of such a claim was matched by the zeal with which Amway evangelists spread the good news. In the beginning, [Amway Corporation](#) maintained that the rumors were the work of [a few bad apples](#), but in the end the corporation was the one making the appeal to the U.S. Supreme Court. Amway claims it has spent over \$30 million in legal fees on the matter. Several lawsuits were filed against Amway (now called [Alticor](#)) in the 1980s

and the last one was settled in 1991, but apparently several more bad apples revived the rumors in 1995 after a zealous distributor used the company voice mail system to revive them.

Amway must have been especially disappointed that the Supreme Court would not hear their appeal. They had hired [Ken Starr](#) to defend them.

The Scientologists have their own coven of lawyers, so they don't need Ken Starr, but they too were turned away by the [Supreme Court](#) this week. Ten years ago they sued *Time* magazine for libel because of an article entitled "Scientology: The Cult of Greed," which called Scientology a "ruthless global scam." A lower court had ruled that the article wasn't written with malice, so it wasn't libelous under the law. The Supreme Court must have agreed for they refused to hear Scientology's appeal.

On another equally loony front, the [Maharishi Mahesh Yogi](#) was [back in the news](#) with a plea for wealthy Americans to send him one billion dollars so he can build facilities for a gathering of 40,000 yogic flyers who will bring world peace by bouncing around together in his compound in India. He believes that if enough people hop while seated in the lotus position, they will create a force field that can repel hatred and spread happiness in the world's collective consciousness. His belief is based upon many years of sitting on his butt and thinking about this in his hut.

The Maharishi is the one who turned on the Beatles to the good life after introducing them to [transcendental meditation](#). Reciting a mantra he has been using for many years, the Yogi was quoted as saying: "If I had the support of money, I have all that is needed to ... completely stop all this violence." It is rumored that the Beatles originally planned to call their hit tune "All you need is money," but their guru convinced them that love would be easier to sell.

The absurdity is that the Maharishi has already collected \$40 million from benefactors according to Mario Orsatti, a spokesman for the Maharishi University of Management in Fairfax, [Iowa](#).

Finally, there was some news about religion and how many people were turning to God after September 11th. In addition to the Scientological vultures mentioned [below](#), [ABC.news reports](#) that "Within two hours of the attacks, the American Tract Society had begun designing a new pamphlet advertising their faith in light of the tragedy. Robert Briggs of the American Bible Society said his privately funded group had published a booklet of tragedy-relevant scriptures and hymns within two days of the attacks and has since distributed more than 600,000 copies of the booklet." Where others see obstacles, some see opportunities. "This is a ripe opportunity for hope," said Reverend Trevon Gross of the American Bible Society in his Manhattan office. "We are not trying to capitalize on this tragedy, we just want to share in the strength of hope." Right. In any case, the horror of September 11th has given America's Taliban an excuse to pray at [public school football games](#), [post the Ten Commandments in courthouses](#), and [rant and rail about our secular ways](#). It is amazing that these moral busybodies and their minions can't see that the America they want to create already exists in places like Afghanistan. "I think you're going to see more Americans not putting up with those secularists trying to make the public

square a religion-free zone," said Richard D. Land, president of the Ethics and Religious Liberty Commission. I think Mr. Land's prophecy is a safe one. It is going to be a rough road ahead for atheists and agnostics, and for organizations such as [Americans United for Separation of Church and State](#), the [American Civil Liberties Union](#), and the [Red River Freethinkers](#). The utter emptiness of [theism](#) has been exposed as mass murderers claim they are serving God by their actions, preachers claim God is punishing people by acts of terror, and the hope peddlers swoop in to claim terror is God's way of bringing out the good in those who survive. How anyone can worship a God that they think had anything at all to do with September 11th is something I will never fathom.

To be fair, it is not just the militant Christian fundamentalists that are the card-carrying members of the American Taliban: the deluded patriots who are attacking anyone who doesn't look "American" enough to them are also in this clan. It is not just American Muslims who are in danger of being attacked by these self-anointed ethnic cleansers. Locally, these militant foot-soldiers for America's *jihad* have attacked and terrorized not only Arab-Americans but Hindu-Americans, Sikh-Americans and Mexican-Americans. [President Bush has condemned these attacks](#), but some people ignore anyone who disagrees with them. They follow their own law. Or worse, they think they are entitled to do what they do because they have been chosen to enforce what they think is God's law.

[thanks to Joe Littrell]

September 19, 2001. [Scientology](#), based on [Lafayette Ronald Hubbard's *Dianetics: The Modern Science of Mental Health*](#) (1950) has been waging a war against psychiatry for years. Several years ago I received in the mail a magazine called "Psychiatry - Destroying Religion" with a sidebar in large red capitals that read "Creating Evil." A menacing, fanged snake with forked tongue protruding and body coiled around a cross stares out from the cover, which has a notice claiming the magazine was "published as a public service by the Citizens Commission on Human Rights (CCHR)." There is even a seal for this organization printed above the notice. The truth is that the magazine and the CCHR are the work of Scientology. The only religion Scientology cares about is Scientology. Unlike other religions, Scientology claims it knows the cause and cure of all mental and physical disorders. Mental Health professionals, therefore, are seen as competitors. Like many other religions, unfortunately, Scientology would like to rid the world of its competitors. Hence, the war against psychiatry.

Deception is one of their tactics in this and all their other wars. For example, they managed to harass through lawsuits and then buy in bankruptcy court an organization ([Cult Awareness Network](#)) that tried to help people whose loved ones had joined cults. They not only then got access to all the records of this organization, they now work the phones and manage and direct all incoming calls.

After the mass murders on September 11th, Scientologist somehow got the [Fox](#) network to post a phone number to their organization, only the phone number was said to be that of National Mental Health Assistance. People were apparently encouraged to call the number for psychological counseling. The number? 800-FOR-TRUTH. I wish this were false, but it isn't.

For more information on other devious tactics used by Scientology to recruit new members during this time of crisis see [Rod Keller's page on Scientology](#).

further reading on Scientology

- ['Mental health' hotline a blind lead](#)
- SD articles on [Dianetics](#) and another book by [L. Ron Hubbard](#)
- [Trancenet](#)
- [The Watchman Expositor](#) Index of Cults, Occult Organizations, New Age Groups, New Religious Movements, and World Religions with Related Terms and Doctrines
- [Persuasion Techniques Used by Cults \(Singer & Lalich\)](#)
- [The "Not Me" Myth: Orwell and the Mind](#) by Margaret Thaler Singer Ph.D.
- [Ontario Consultants on Religious Tolerance Page on Doomsday, Destructive Cults](#)
- [Operation Clambake](#) - the fight against Scientology on the Net
- [The AFF Cult Page](#)
- [Cult Awareness Network \(Bought by a Scientologist to get the files of CAN\)](#)
- [Testimonies of scientologists and critics](#)
- [Steven A. Hassan's Homepage](#) - author of [Releasing the Bonds](#) and [Combating Cult Mind Control](#)
- [Rick Ross, deprogrammer](#)
- [The Cult Next Door](#)
- [The Reed Slatkin fraud](#)

August 10, 2001. James Taranto's columns ("Best of the Web," *The Wall Street Journal*) for [July 23, 2001](#), [July 24, 2001](#) and [August 6, 2001](#) took the mass media, particularly Fox News, to task for their junk journalism concerning the [Chandra Levy missing person case](#). No, he didn't criticize Hannity of [Hannity and Colmes](#) or Geraldo Rivera for smooching up to some pseudojournalist from the *National Enquirer* because that beacon of investigative fiction was able to find Darrell Wayne Condit. The hype was that that the *Enquirer* did what the FBI couldn't do: find a fugitive. This so-called fugitive had an outstanding warrant for violating his probation for a drunken driving conviction, not a very high priority item. Only the stars of cable news and the *Enquirer* would think it important to locate Gary Condit's younger brother because only they would assume the congressman must be involved in the young woman's disappearance and may have hired his "criminal" brother to eliminate her. (Hannity and Rivera reminded me of Dan Rather's fulsome praise of Larry King's interrogation methods while being interviewed by a fawning, softball-lobbing King.)

No, Taranto didn't mess with this side of trash journalism. He was upset because Fox News was interviewing [psychics Sylvia Browne](#) and [James Van Praagh](#) in their quest to discover what happened to Levy. They both say she's dead. Van Praagh claims she was strangled and all but implicated the congressman as the strangler, which Taranto found to be "the most outrageous example of journalistic irresponsibility we've seen in a long time." Taranto was especially displeased with [Judith Regan](#) who gave Van Praagh the forum for his "occult claptrap." Says Taranto: "Regan acted as if it's a

matter of dispute whether the proclamations of the charlatans who call themselves 'psychics' are legitimate news. She began her show by reading four letters from readers cheering Fox on for putting 'psychics' on the air, and two letters from critics." The old "majority of satisfied customers" test is well-established in alternative medicine, so why not in alternative journalism?! Then she brought on another "psychic," [John Monti](#), "who offered his own crackpot theories about what happened to Chandra."

Taranto also criticized [Paula Zahn](#) for consulting "spiritual medium [Rosemary Altea](#)" and "world-renowned psychic Sylvia Browne" for her news shows on July 12th and 17th, respectively. Zahn did a follow-up, asking whether she went too far in consulting psychics (as if there should be any doubt in the mind of a "real" journalist).

The last of the Fox News stalwarts denigrated by Taranto was [Bill O'Reilly](#) who interviewed "handwriting expert and psychic [Paula Roberts](#)." Comments Taranto: "O'Reilly--normally a swaggering skeptic who calls his program "the no-spin zone"--was so ovine in his credulity that we expected him to sprout wool."

The *New York Times*, which recently ([July 22, 2001](#)) ran feature articles on "psychic consultants" who claim to communicate with animals telepathically and on [John Edward](#) ("the Oprah of the other side"), had the chutzpah to criticize Fox News ([July 30, 2001](#)) for its psychic endeavors. The *NYT* also took to task Larry King for his panel of experts who evaluated Congressman Condit's facial expressions. King, of course, regularly schedules psychics for his "panels" of experts on the topic *du jour*. I'm surprised he hasn't yet featured [Miss Cleo](#) on one of his expert panels. Maybe she could use the money since her company's psychic hotline was recently fined \$75,000 for violating Missouri's no-call law.

It is comforting to know that not everyone in the mass media has gone mad. [James Taranto](#) is a refreshing [voice](#) in the wasteland of what passes for journalism these days.

Another light in the dark is [Howard Kurtz](#) of the *Washington Post*, who writes: "Bill Shine, executive producer of prime-time programming, says psychics are 'part of the story' because the Levy family has consulted some. 'We've just put them on to get another opinion, another side of the story,' he says, adding that other guests have criticized psychics as not credible. Shine concedes he's worried about Fox's image and 'that's why we don't go overboard with it.' What a relief."

I can understand reporting that the Levy family has consulted psychics, but I don't understand how you get from there to the conclusion that therefore psychics are part of the story and can legitimately be consulted for their opinions. Must be some sort of *alternative logic* at work here.

[thanks to Joe Littrell & Barry Karr]

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Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

4

January 19, 1998. *Washington Post*. Today the *Post* ran an article singing the praises of the DKL Lifeguard from [DielectroKinetic Laboratories \(DKL\)](#). The device is supposed to be able to detect a human heartbeat up to 500 yards away. It is touted as a great thing to have when searching for a lost person in, say, the rubble of an exploded building. Personally, I'd rather have a good dog in such a circumstance. [I've expressed my skepticism of this device elsewhere](#), so I won't repeat my concerns about the device here. Rather, my concern is about Beth Berselli, who wrote the article, and the *Washington Post*, which printed "A Real Find for Rescuers - In a Search, LifeGuard Detects Heartbeats; Now DKL Has to Locate Buyers."

Almost all of the information about this magical device came from Howard Sidman, one of the founders of DKL, and Michael G. Charapp, the company's attorney. Sidman's explanation as to how the device works, as well as his assurance that it works, went unquestioned by Ms. Berselli. She even bought Sidman's pitch that the only way the Lifeguard can be proved to work is if there is testimony from satisfied customers, but without customers there can't be any testimonies. I guess neither Sidman nor Berselli ever heard of a [controlled experiment](#). "How can DKL sell the LifeGuard," Berselli writes, "until it has a track record? But how can it develop a track record until a lot of customers are using it?" Easy. Demonstrate the thing works under controlled conditions.

The closest Ms. Bereselli gets to showing she is not totally gullible is to note that "Though the technology is unproved, the concept behind it has supporters." For example, Joe Dougherty, a researcher at Pennsylvania State University's Center for Dielectric Studies, says "It's doable." That's some support! Tony Daniels is a more enthusiastic supporter. There is no evidence given that Daniels knows anything about the LifeGuard units, which sell from between \$6,000 and \$14,000, but he seems sure that "this will definitely give law enforcement officials an edge." Yes, if it works! Daniels is a former head of the Washington field office of the FBI and now runs his own consulting firm. He recommends it to his clients. "It will save lives and it'll save serious injuries." How he knows this is not mentioned.

Sidman claims that he and his investors have put half a million dollars into DKL. He is on the road trying to sell it to police departments, who never seem reluctant to spend the taxpayers money on unproved and questionable devices, such as the [Quadro Tracker](#). DKL seems to have put most of its money into marketing and very little into research. We are told near the end of the article that "DKL officials say they understand the hesitancy of potential customers but are confident that testing, marketing and a public education campaign will attract customers."

Did it not occur to Ms. Berselli that [testing of such a device should be relatively simple](#) and that the fact that there is any doubt at all that the thing works as claimed is a tip-off that something is amiss?

November 25, 1997. "At his first American press conference in 15 years, British futurist Benjamin Creme stated that [Maitreya - World Teacher](#) for the coming age-will be interviewed on a major American network before the end of the year. This will be followed by appearances on other networks around the world and, within months, will lead to a global satellite hook-up where Maitreya can speak to all people simultaneously-in their own language." You can read all about it and be prepared for the Great One. [\[click here\]](#)

December 10, 1997. *Larry King Live*. Just when I thought Larry was doing some good! (He had a very fine show on *depression* last week, featuring Art Buchwald, Margo Kidder, Marianne Hartmann (?) and [Dr. Kay Jamison](#).) Tonight Larry featured an alleged psychic named James van Praagh. This guy was special. All the billions and billions and billions of dead people are just waiting for someone to give James their names. That's all it takes. Give him the name and presto! the dead contact him in words, fragments of sentences or feelings of appearances. He could "feel" Larry's dead parents and even pointed out where in the room these feelings were coming from. James took phone calls on the air and, once given a name, he started telling the audience what he was "hearing" or "feeling". He fished for positive feedback and got it, indicating that he really was being contacted by spirits who wanted to tell their loved ones that being dead ain't so bad when you've got a guy like James to talk to on Larry King Live.

Of course, James has a book out with a can't-miss title: *Talking to Heaven*. (*Talking to God* and *Talking to Angels* have already been taken.) And he has a great fan who has put up a [WWW site](#) to keep us informed of James' books, tapes, upcoming products, tours and appearances. I predict continued success for James, as long as he never gets a bad message from any of the billions and billions of dead people who never get a busy signal when they call Mr. van Praagh.

November 30, 1997. "Acupuncture goes mainstream" by Brenda Biondo in *USA Weekend* (Nov. 30, 1997) contained very little skepticism about this controversial medical method. (The AMA is highly skeptical of acupuncture, it said.) The author passed on a few anecdotes and testimonials about how after acupuncture "the pain was gone." Little concern was shown either by the author or those giving the testimonials for such things as the possibility that the end of the pain had little or nothing to do with the acupuncture. It was enough to find support from "a federal panel of experts," i.e., the quacks who stack the National Institutes of Health Alternative Medicine division. They're claiming that there is "clear evidence" (whatever that means) that acupuncture is "effective" (whatever that means) for treating nausea caused by anesthesia, chemotherapy or pregnancy. (Why it wouldn't work for nausea from other causes remains a mystery.) Acupuncture is also said to be "effective" "for pain after dental surgery."

In addition to the self-interested testimony of the NIH alternative medicine panel, Biondo quoted another self-interested party, Janet Konefal of the University of Miami's Center for Complementary Medicine, as saying that physicians are

"definitely warming up to acupuncture." Now that is a scientific statement based, no doubt, on at least two conversations with her fellow researchers. If, as the Medical Acupuncture Association says, there are only about 4,000 American doctors using acupuncture, then I would say that not too many are warming up to it.

Throughout her article, the author implied that acupuncture may be effective in treating such diseases as cystic fibrosis, cancer, drug addiction and Parkinson's disease. In a strange twist as to what ought to drive medical research, it is claimed that "public interest" in acupuncture is what is motivating hospitals, research centers and insurance companies to take acupuncture seriously. What next? Psychic surgery because the public demands it?

A sidebar to the panegyric for acupuncture stated that there are two main theories as to how it works, but it did not seem concerned to note that one of the theories is [a metaphysical theory which can never be tested scientifically](#), while the other is an empirical theory and falsifiable. It is doubtful the author knows the difference between an empirical and a metaphysical theory, or what "falsifiability" means. In any case, the empirical theory noted speculates that the needle pricks stimulate the release of endorphins and other "chemicals and hormones" but the likelihood that these chemicals and hormones will cure cystic fibrosis or cancer seems near zero.

Finally, in other sidebars several WWW sties were listed where one could "learn more about acupuncture," but of course none of the sites are skeptical, such as the following sites: [the National Council Against Health Fraud](#), [Stephen Barrett, M.D.'s site](#), or *The Skeptic's Dictionary* entry on [acupuncture](#) or [pathological science](#).

July 5, 1997. On the front page of the "Family, Religion & Ethics" section of the *Sacramento Bee*, [past life regression therapy](#) for children was featured. "Can echoes of past lives haunt kids? Reincarnation is topic of book for parents," reads the headline. The article is by Edward Colimore of Knight-Ridder Newspapers and pretends to be a review of Carol Bowman's book, *Children's Past Lives: How Past Life Memories Affect Your Child*. Colimore's article is actually an uncritical presentation of a metaphysical belief in reincarnation and its application by hypnotherapists.

Nowhere in the article is it mentioned that many hypnotherapists have no formal training in psychology or medicine and that often attendance at a weekend training seminar is all one needs to become a certificated hypnotherapist. According to Margaret Singer and Janja Lalich,

There are no licensing requirements, no prerequisites for training, and no professional organization to which those who hypnotize others are accountable. You can be a real estate agent, a graphic artist, an English teacher, or a hairdresser and also call yourself a hypnotherapist by hanging a certificate on your wall that states you took as few as eighteen hours of courses in hypnosis.

This lack of oversight leads to all sorts of abuses and malpractice. (["Crazy" Therapies](#), p. 53)

The only voice of opposition to Bowman's thesis that the behavioral problems of children are due to past life memories was a short paragraph noting that the Catholic Church does not accept the doctrine of reincarnation. In another context, this matter-of-fact juxtaposition of opposing metaphysical views would be acceptable. In the context of an article aimed at encouraging parents of children with problems to seek out a hypnotherapist to find out what past life is harming their child, the comment about Catholic disbelief appears out-of-place at best, and at worst could be taken as an attempt to portray Catholics as hopelessly out-of-touch with New Age ideas.

No mention is made in the article that there is absolutely no scientific evidence that past life regression therapy works. There is ample evidence that many people can "recall" past lives, whether hypnotized or not. Fantasizing about having lived before is not difficult. There is ample evidence that some people have very vivid and detailed "recollections." And there are numerous anecdotes about people "feeling better" after having fantasized about a past life. But there is no evidence that (1) the memories are of previous incarnations or that (2) any improvement in health has been caused by remembering anything from this or a previous life, except perhaps remembering to take one's medications.

No mention was made that past-life regression therapy is considered "pure quackery" by the American Psychiatric Association. No mention of critics of regression techniques, such as Singer and Lalich, was mentioned. In their evaluation of several New Age therapies, Singer and Lalich write:

Because objective research on regression techniques is limited, the assumptions about regression remain merely myths based on anecdotal reports from enthusiastic proponents. (*"Crazy" Therapies*, p. 26)

Colimore's article provides several of Bowman's anecdotes. She claims she was healed of a severe lung ailment after learning that she had died of consumption in the 19th century and then died again in a Nazi gas chamber. A year after her "healing," her 5-year old son, Chase, was cured of his fear of loud noises by discovering that he had been a black soldier during the Civil War. Bowman offers as evidence of the wondrous nature of past-life regression therapy the fact that her son, now 14, is a drummer. Finally, Bowman's daughter, Sarah, was cured of her fear of house fires when she discovered she had previously died in one.

A skeptic would say that all of these remembered events are from this life, not a past one. Their source is probably television, movies, stories heard or books read. A critic might reply: *Who cares?* As long as her lungs got better, the boy overcame his fear of noise and the girl overcame her fear of fire, *what difference does it make whether their memories are of past lives or not?* They got better. Isn't that all that matters? What harm is there in a little fiction if it helps?

The harm is in the method and the claim that it has broader application. The method makes a mockery out of science and the quest for knowledge. Science is not built on anecdotes and metaphysical notions of the soul. It is built upon observation and controlled studies. The claim that these anecdotes have broader application is likely to have the effect of harming children whose parents will be convinced that their

children's behavior, which is caused by a brain disorder or hyperthyroidism, etc., is actually due to a past life experience. Such gullible parents will take their children to a hypnotherapist instead of to a physician. As a result, some children may very well die because they did not receive proper treatment early enough.

Instead of comparing the claims of Bowman to the work of a real scientist and psychologist (such as [Aaron Beck](#)) or psychiatrist [Ivan Goldberg](#), Colimore reinforces Bowman's claims by quoting Barbara Lane, another past-life regressionist. Lane is even cited for her theory that "regression experiences...could be genetic memories. The life experiences of ancestors imprinted on genes and passed down." No genetic scientist and no [neurobiologist](#) would admit such a possibility for the workings of [memory](#). Yet, Colimore leaves the reader without mentioning the absurdity of this theory of memory, much less without describing how memories are created by neural connections in complex ways unfathomable by the likes of Bowman and Lane. He simply notes that Lane says that "some people" believe the stories are based on memories of things read, etc., but whose source is forgotten and "others" think that past life memories are the result of imagination and knowledge of the past. No attempt is made to evaluate these different explanations, giving the impression they are of equal value and weight.

In any case, Colimore simply counterbalances the notions of skeptics and Catholics with Bowman's assertion that nothing but reincarnation adequately explains the anecdotes of children's past life regressions she recounts in her book. Bowman demonstrates her ignorance of children when she claims that some of her cases involve children who are "too young to read or watch serious TV documentaries." They may be too young to read, but if their hearing is not impaired, they can hear stories and listen to TV. If their vision is not impaired they can watch TV at a very early age. Bowman also seems unfamiliar with the vividness and pliability of children's capacity to perceive, imagine, [confabulate](#) and remember.

Bowman's claim that some of her subjects have birthmarks or birth defects which correspond to fatal wounds received in an earlier life is especially unconvincing. Colimore cites the research of professor Ian Stevenson of the University of Virginia as supporting this hypothesis. A similar claim is made by those who claim they've been [abducted by aliens](#): unaccounted for marks on their bodies are taken as proof they've been abducted and experimented on. Maybe alien abductees should consider the possibility that their marks come from previous lifetimes!

In all fairness, it should be noted that Bowman does indicate that it would be scientifically useful to extract from her anecdotes some general principles. She provides the following four signs as evidence that a child's past life story has "substance."

1. Whenever the past-life memories had substance, the children often talked about them in a matter-of-fact tone.

And if they did not talk about them in a matter-of-fact tone, I guess that was proof that the memories did not have "substance." This claim says little more than "I believe the stories are true when the kids use a certain tone." Very scientific.

2. Whenever the past-life memories had substance, the children told the stories with consistent details.

This says little more than "I believe stories which are consistent and detailed." (A reasonable person might consider a few other qualities as being essential to a believable story, such as whether the story is likely to be true or not.)

3. Whenever the past-life memories had substance, the children had knowledge beyond their experience.

This says little more than "I believe a child's past life story is true if I also believe the child could not have gotten this information from any other source. Logicians call this *begging the question*.

4. Whenever the past-life memories had substance, the children exhibited corresponding behavior and traits, such as phobias, birth marks or chronic physical conditions.

This says little more than "I believe a child's past life story is true if I can find some behavior, trait, phobia, birth mark or physical condition to relate to the story. In other words, the limits of my credulity are the limits of my imagination.

The main appeal of such notions is to the desire to live forever. If you know the four signs, says Bowman, "you can catch the magic moment." For, "when a child speaks so innocently and knowingly about living before....it is firsthand testimony to the truth that our souls never die." Perhaps. On the other hand, [Children's Past Lives](#) may also be firsthand testimony to ignorance of science, to gullibility and, above all, to wishful thinking.

I guess I should be grateful, however, for the small relief from the barrage of articles and television "documentaries" on this "[Roswell](#) Anniversary Weekend."



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Mass Media Bunk

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June 29, 2000. [CBS "48 Hours"](#) claims that tonight it "puts the paranormal world to the test." Instead what CBS actually does doesn't even qualify as "soft" news. They do a paranormal promotional piece, without much serious investigation of anything. The show features a psychiatrist who swears by [past life regression therapy](#) and the show does nothing to dispel his delusion. (Brian Weiss is one of many weird therapists treated in [Crazy Therapies](#), reviewed here.) Another segment features an up-and-coming [James Van Praagh](#) type named [George Anderson](#) who can hear the dead talking to him. He doesn't perform very well, however, but he doesn't give up his claim to paranormal powers. A third segment features Russell Targ and Joe McMoneagle on [remote viewing](#). No skepticism here; just a promo for these quacks. Another segment supported the notion of [ghosts](#) and [haunted houses](#). The final segment dealt with [psychics who help cops](#). At least here Joe Nickell was brought in to cast doubt upon alleged psychic Annette Martin. However the segment ends with Martin saying that as a result of the original 48 Hours broadcast in August 1999, another dozen police departments called for her help. Whether she was lying or not was not investigated by CBS.

[thanks to Matt McNaney]

June 22, 2000. [CNN.com](#) promotes the wonders of dowsing in an unsigned article from the Associated Press. The article is mostly a gullible presentation of the views of three dowsers, Tommy Hanson, LeRoy Bull, and Craig Elliot. Hanson seems a bit confused since he admits he doesn't know how [dowsing](#) works and yet he says: "People are negative about what they don't understand." Yes, and sometimes people are positive about what they don't understand.

Bull is a law unto himself. He says about 496 out of 500 people can get at least a little dowsing reaction. His attitude makes it sound unlikely that he keeps records. He scoffs at the idea of scientific study. Elliot says dowsing works as long as you don't have "monkey thoughts." Bull not only dowses for water, he uses a pendulum to tell him such things as whether vegetable are fresh. Clockwise means yes. Counterclockwise, means no. "We've been standing around with our hands on our hips waiting for the scientific community to come stumbling along," according to Bull, who gets the last word in the article: "For those who don't believe, no amount of evidence is enough. And for those who do believe, no evidence is necessary."

To be fair, the author gives one line to James Randi, who is described as "a prominent debunker of claims of paranormal phenomena." Robert Park is described more neutrally as a physics professor and is given several lines to offer some skeptical comments.

[thanks to Anthony Dillingham]

June 21, 2000. [WebMD.com](#)'s Denise Mann gives some lip service to skeptics and uses cautious language, but overall her article slants in favor of [therapeutic touch](#). "Non-Contact 'Therapeutic Touch' May Indeed Have the Right Touch Forms of Healing Based on Energy Fields, Spiritual Methods Reviewed" is the title of her article. She seems to think highly of John Astin's study (see below, June 5). She notes that skeptics disagree with the claims of TT, but presents her material as if both proponents and opponents had equal evidence on their sides.

June 7, 2000. [Excite.News](#) promotes Joshua Shapiro's claim that "Crystal Skulls are among of the most mysterious artifacts that have been discovered on our Earth." [Crystal skulls](#) are mysterious only if you don't know anything about them.
[thanks to Joe Littrell]

June 5, 2000. [According to the University of Maryland](#), John A. Astin, Ph.D., assistant professor in the School of Medicine's Complementary Medicine Program, analyzed 23 clinical studies involving prayer, [therapeutic touch](#), and some other "unconventional forms of spiritual intervention" and found that 57 percent of the studies showed a positive impact on the patients. "Statistically speaking, the figure of 57 percent is highly significant," says Astin. "This is far more than one would expect to see by chance alone."

Astin claims that the studies "were chosen for the scientific quality of the research." The University's press release does not mention how scientific quality was measured, but he does mention "one study of nearly 1,000 heart patients...who were being prayed for without their knowledge [and who] suffered 10 percent fewer complications. That study was published last year in the Archives of Internal Medicine." That study has been [reviewed here](#) and if it is an example of what Dr. Astin thinks is quality science, then we can take his conclusions with a grain of salt. He might consider looking for an explanation of the statistically significant positive results in the desires of the researchers rather than in the effectiveness of the unconventional interventions. Or, perhaps he is too generous in his designation "showed positive impact on the patients." For example, he notes that "of the 11 studies involving therapeutic touch, seven showed at least one positive treatment effect." At least one positive treatment effect? Dr. Astin's assessment sounds more like charity than science.

The University of Maryland [prides itself](#) on being one of nine research centers in the U.S.A. to receive the "prestigious NIH designation as a Specialized Center for Complementary and Alternative Medicine."
[thanks to Craig Levin]

June 2, 2000. [CNN.com](#) reports on how a veteran journalist used [feng shui](#) to get a job as book editor at *USA Today*. Carol Memmott thinks she got the job because she moved her trash can from the "wealth corner" of her office, painted the room yellow (to inspire "creativity and good feelings") and put in "a bubbling water fountain to make the [chi](#) (energy) move through the room." One hopes she is not the *science* book editor of *USA Today*. If so, she might want to read up on the [post hoc fallacy](#) and why [controlled studies](#) are done to overcome the human tendency to [self-deception](#).

The article doesn't mention which of the 250 feng shui titles listed on Amazon.com Memmott used, but it does mention two authors, one of whom has appeared on the Oprah Winfrey show. No surprise there. The other, Nancilee Wydra, is the author of *Feng Shui Goes to the Office*. Wydra says she practices *pyramid school* feng shui, an interesting creation in that it claims that its principles work differently on different people. This unique feature, of course, makes it impossible to test. Nevertheless, Wydra claims that "feng shui can help cure the ills that the high-tech culture places on workers." What these ills might be is not mentioned in the article, but I'm sure they are formidable and have to do with bad energy flow.

The author of the article is Patty Rhule of WomenConnect.com. She concludes with a hee-haw [anecdote](#) about an acupuncturist who got advice from Nancy Tartt, who practices "black hat and compass feng shui." On Tartt's advice, Beatty painted the steps to her office black and the entryway white. She then did a cleansing ritual that included burning dried sage to help "shift the energy." Did it "work"? Of course. After the changes, Beatty claims that she felt like she had more energy at work and she didn't "feel so resentful going to work" where she has to share space with another acupuncturist and a massage therapist. "I felt happier," said Beatty, "and I feel like the quality of my work improved." That's what it's all about, isn't it? If the customer is satisfied, the [pseudoscience](#) is validated.

For a more scientific view of feng shui read [Dave Barry's column on how to build a deck](#).

[thanks to Jon Henrik Gilhuus]

May 23, 2000. A writer for [Reuters](#), apparently completely ignorant of skeptical writings about the [shroud of Turin](#), writes

no one has been able to get to the bottom of how the three-dimensional, heat-resistant and apparently indelible image of a man with long hair and wounds consistent with Gospel descriptions came to be imprinted on the ancient linen cloth.

It was done with paint.

The writer also claims

The sheet also bears traces of ancient male type AB blood, which some scientists say is consistent with traumatic injuries.

Not true. No blood has been found on the shroud.

The writer also calls the carbon dating of the shroud "controversial." It is controversial only because a number of faithful believers refuse to accept the work of three independent research teams.

[thanks to Erik Alldredge]

May 18, 2000. According to *USAToday's* A.S. Berman, Einstein said "Science without religion is lame....Religion without science is blind." Never mind that the sentiment does not sound like anything the mature Einstein would say. (Einstein's

views on religion were closer to [Spinoza's](#) than to any orthodox religious thinker.) The quote is a hook to a story about [Charles Tart](#) and his unsubstantiated claim that scientists are afraid of being fired if they reveal they are religious or have had anything like a religious experience. To accommodate all those pitiable scientists who are cowering because of their fear of being exposed as morons or idiots, Tart has set up a web site where the scientists can pour out their sacred secrets. He calls it [TASTE](#), The Archives of Scientists' Transcendent Experiences.
[Thanks to Joe Littrell]

May 14, 2000. *UsaWeekend* (May 12-14) features an article by Ann Japenga in its health section entitled "Does your doctor use intuition?" It seems Harvard Medical School has a third stooge to join [Deepak Chopra](#) and [Andrew Weil](#). Jerome Groopman, M.D., is the author of *Second Opinions: Stories of Intuition and Choice in the Changing World of Medicine*. He says he's "a rationalist and a scientist" but finds that in many instances his best bet is to use his "gut sense." This reminds me of the cartoon about the doctor who is asked by his assistant what they should do now that the patient is dead. The doctor replies, "give him an enema." "But he's dead," says the assistant. "Right," says the doctor. "It can't hurt him."

Japenga also notes that [Judith Orloff](#), a "[psychic](#)" psychiatrist who claims she can diagnose intuitively and has several books to prove it, will be addressing the American Psychiatric Association's annual meeting this coming Wednesday. She's also an assistant professor at UCLA.

Maybe the government ought to investigate how many [deadly medical mistakes](#) are due to intuitive medicine.

Japenga contrasts intuitive medicine with evidence-based or outcomes-based medicine, which use tests and treatments established through research. This contrast, I suppose, is meant to give balance to her essay. She concludes with a quote from David Slawson, M.D., an associate professor at the University of Virginia: "A physician needs to be grounded in science but also must have the ability to improvise."

So, if your doctor suddenly starts [sucking on your leg and spitting nails into a dish](#), he or she may just be using intuition. Frankly, I'd feel better if my physician consulted a [computer](#) rather than his or her intuition.

What's wrong with using intuition to make medical diagnoses? What's wrong with it is that it is too easy [to deceive ourselves](#) into thinking we have some sort of extraordinary ability to understand things when we don't. Intuitionists don't keep proper records. They have no real idea as to how often they are right or wrong. They rely on memory to verify their power. It is easy to remember when one is right, but it is even easier to forget when one is wrong. Also, with no specified method or clearly testable claim to begin with, it is easy to massage the data to fit the intuition after the fact.

When I think of professionals using intuition I think of the police and their [blue sense](#). I think of the FBI and their intuitions about [Cary Stayner](#). I think of deluded people who think they are psychic. I think of inmates taking over the asylum.

May 13, 2000. The Vatican revealed today that in 1917 it was revealed to three children at Fatima that in 1987 an assassination attempt would be made on the Pope. The prophetic vision was of a "bishop clothed in white" who "falls to the ground, apparently dead, under a burst of gunfire." With such a clear message, it is a wonder that it took the Vatican more than eighty years to figure out the meaning, even though it has been 13 years since the Pope was shot by a Turkish tool of God. [thanks to Joe Littrell]

May 11, 2000. Fox outdid itself with "Powers of the Paranormal." The show was billed as real paranormalists and psychics performing before a live audience, but it was mostly parlor tricks and standard stage magic and mentalism. The show was too trashy to review. The host Jim Lampley, whom I remember as a fairly decent sideline commentator for college football games a few years ago, seems to have been put out to pasture. For a review, see Joe Nickell's comments on the [CSICOP page](#).

May 8, 2000. "The substance some Neapolitans believe is the dried blood of their patron, St Gennaro, liquefied on cue for a twice-yearly event the faithful believe is a miracle." So begins a Reuters' story published on [Yahoo!.News](#).

The powder mysteriously turns to liquid twice a year -- on the saint's feast day on September 19 and on the first Saturday in May.

The event has been recorded on the two days almost without fail for the past 600 years....

Italian scientists have confirmed that the substance inside the closed vial is blood but cannot explain why it liquefies regularly.

To its credit, the article does note that historians have no record of this alleged blood relic before 1389, more than a thousand years after Gennaro's alleged death. I say alleged death because there is no record he even existed (Nickell, 79). Also, the Italian scientists who examined the vial of blood in 1902 and in recent years were not allowed to take a sample of the stuff to the lab. They were allowed to shine a light through the vial and on the basis of a spectroscopic analysis concluded the substance is blood (Nickell, 78). It is not true, however, to say that scientists can't explain why the stuff in the vial liquefies regularly. A professor of organic chemistry at the University of Pavia, Luigi Garlaschelli, and two colleagues from Milan offered [thixotropy](#) as an explanation. They made their own "blood" that liquefied and congealed, using chalk, hydrated iron chloride and salt water. Joe Nickell did the same with oil, wax and dragon's blood [a resinous dark-red plant product].

The article does mention that the Neapolitans are a superstitious people, but it does not mention that there are about 20 allegedly miraculous vials of various saints' blood and nearly all of them are in the Naples region, "indicative of some regional secret" (Nickell, 79). The article also suggests that their superstitions may be justified. The number Neapolitans associate with miracles--66--came up in the national lottery on May 6th. The article also notes that the Neapolitans believe that if the blood fails to liquefy, disaster is around the corner.

Disaster has struck on at least five occasions after the blood failed to liquefy, including in 1527 when tens of thousands of people died from the plague and in 1980 when 3,000 people died after a earthquake that devastated southern Italy.

What isn't mentioned is how many times disaster *didn't* happen after the blood failed to liquefy and how many times disaster did happen after the blood *did* liquefy. A bit of [selective thinking](#) seems to be going on here.

The article also suggests that the 'miracle' is a con. It is noted that Cardinal Michele Giordano, who carried the vial in this year's May procession, is "under investigation on suspicion of complicity in loansharking, extortion and criminal association following the arrest of his brother in 1998." But the article doesn't mention that the ritual used to also be performed on December 16, "but the liquefaction occurred relatively rarely on those occasions--apparently due to the colder temperature--and those observances have been discontinued" (Nickell, 81). Most skeptics are convinced that whatever is in the vial is reacting to some natural phenomenon, such as temperature change or motion. Even some religious thinkers consider such 'miracles' frivolous and unworthy of God.

[thanks to Joe Littrell]

further reading

Nickell, Joe. *Looking for a Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* (Prometheus Books: Buffalo, N.Y., 1993). [\\$14.36](#)

May 5, 2000. Larry King's guests tonight were [James Van Praagh](#), [Char Margolis](#) and [Sylvia Browne](#). Larry was very excited about the movie "[Frequency](#)." Actually, none of them seem to care whether there is any difference between reality, a film, a delusion, or a fairy tale for a ship of fools. [CNN.com](#) has the complete transcript, if you can bear to read the dialogue of four imbeciles tripping over each other to say something trite about life and death. An hour with this crew and most people would probably wish they were dead. Larry should have called the show: *Death Wish IV*. The dialogue reminds me of a line in a Bob Dylan song ("Foot of Pride"): *say one more stupid thing to me before the final nail is driven in*.

[thanks to Tim Boettcher]

May 5, 2000. *USAWeekend* (May 5-7) featured an interview with [James Van Praagh](#), whom they call a "medium-to-the-masses", though after reading the interview they might well call him the medium-of-the-asses. He actually claims that dead dogs talk to him and one of these dead dogs told him that he (the dead dog) was very upset that his owners gave his old food dish to the new dog they bought. How the interviewer, Jennifer Mendelsohn, could ignore commenting on such inane claptrap is incomprehensible to me. She followed up his dead dog tale with serious journalistic aplomb. She asked him: "Can anyone, with proper training, do what you do?"

For the answer, see the *Skeptic's Dictionary* entry on [cold reading](#).

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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Readers are encouraged to send *Mass Media Bunk* material to:

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Mass Media Bunk

14

December 16, 2000. According to Discovery.com writer Jennifer Viegas, dogs "may be able to read our minds, knowing what we're thinking even before we move or say a word." She bases this claim on an experiment some German researchers at the Max Planck Institute for Evolutionary Anthropology in Leipzig did with some dogs. Claire Ainsworth of [New Scientist](http://NewScientist), the source for Viegas' article, put it a bit differently: "Although dogs can't quite read our minds, they seem to know what we can see." According to Ainsworth, the researchers

placed treats on the floor in front of a number of dogs in turn, and forbade each animal to eat the food. As long as the person remained in the room, the dog rarely went for the food. But if the person left the room, the dog scooped the treat within five seconds.

They tested the dogs' behaviour in greater detail: once with someone looking directly at the dog, once with a person playing a computer game, once with a person with their eyes shut, and once with someone sitting with their back to the dog. In tests on six dogs, they found that the dogs stole twice as much food when the person was not looking directly at them.

The scientists did not conclude that the dogs might be psychic, but rather that dogs don't simply respond to a stimulus. "This may mean that dogs are able to figure out what humans can see," said one of the researchers.

On the other hand, Viegas spiced up her article by quoting Jean Donaldson, director of behavior and training at the San Francisco SPCA. "This might explain dog telepathy and why dogs can predict things like cancer occurrences and epileptic seizures," she said. Indeed, that's what my friend's Doberman, KC, said it was in his latest e-mail.

[thanks to Laddie Chapman]

reader comments

17 Dec 2000

I read with interest Laddie Chapman's item on Jennifer Viegas's article at Discovery.com. However, when I went to the site and read the actual article I was dismayed to find that Chapman had selectively edited the material in order to present a particular point of view. To wit: 'According to Discovery.com writer Jennifer Viegas, dogs "may be able to read our minds, knowing what we're thinking even before we move or say a word." ' The next sentence is omitted in Chapman's item.

The full quote should read : "Man's best friend may be able to read our minds, knowing what we're thinking even before we move or say a word. By closely watching the direction of our gazes dogs appear to be able to tell what we're looking at or more importantly, whether we're looking at them, according to a team of German researchers. " This changes the tone of Viegas's statement from ridiculous to sensible.

reply: First, Laddie Chapman referred me to the article in question. I do all the writing for the Skeptic's Dictionary. So, if you have a quarrel, it is with me, not Mr. Chapman.

Secondly, it is a judgment call as to whether Viegas' second sentence changes the tone from ridiculous to sensible. I don't think it does, especially in light of the title of her article--"Can Dogs Read Our Minds?"--and her concluding quotation. Viegas has clearly distorted the work of the scientists, which had absolutely nothing to do with testing psychic abilities in dogs.

In addition, Chapman says: 'On the other hand, Viegas spiced up her article by quoting Jean Donaldson, director of behavior and training at the San Francisco SPCA. "This might explain dog telepathy and why dogs can predict things like cancer occurrences and epileptic seizures," ' Again, this is a very selective quote. In reality the quote from the Viegas article reads: "Jean Donaldson, director of behavior and training at the San Francisco SPCA, said dogs could also be sensing small changes in our body chemistry.

"This might explain dog telepathy and why dogs can predict things like cancer occurrences and epileptic seizures," she said. " Again this is a far more reasonable argument and grounded in science.

reply: Again, this is a judgment call. I fail to see how Donaldson's reference to "sensing small changes in our body chemistry" makes her *more* reasonable. In my view, it makes her *less* reasonable. Where did she come up with such a notion? And what possible connection could it have to claiming that dogs can predict cancer by telepathic means?

In fact, I read the Viegas article and found nothing in it that suggests that she was doing anything more than reporting the facts of the study. I realize that you cannot personally check every submission, but in this case I would ask that you modify or remove this incorrect item. And no, I am not a lawyer.

Glen Hutton

reply: I suggest you read it again and compare it to the article in *New Scientist*, where there is absolutely no hint of anything paranormal. I cannot see how you can think that this article is just "reporting the facts" when it is entitled "Can Dogs Read Our Minds?", states in its opening line that "man's best friend may be able to read our minds" and concludes with a quote from someone

who thinks dogs can predict cancer by telepathy.

Glen Hutton replies:

First, my apologies to Mr. Chapman. Second, as the item was yours, and the website is yours, you are of course entitled to your interpretation of the Viegas article. I apologize for being pedantic but I wish to clarify two points with regard to my interpretation. 1) I took the reference to the psychic abilities of dogs, as referring to the seeming ability dogs have to read our minds. I did not assume the writer meant you to believe that dogs actually can read minds. What she was saying was "You know when your dog seems to be reading your mind? Well here is what may actually be happening. Your dog may be focusing on real and measurable motions and smells that you are not aware you are producing". Therefore the second sentence is vital. She is saying that the dog may be guessing at your intentions long before you are even aware that you are signaling them. This is clearly an example of dog "telepathy" being a version of the "Clever Hans" phenomenon of the last century.

reply: You are a very generous soul, Glen. I have re-read Viegas' first paragraph again, trying to see it your way, but I can't. I don't think she was using the headline and her opening sentence as teasers or hooks. If she wanted us to read her as you do, she should have opened with a different sentence (like the one you suggest), making it clear that dogs *seem* to be able to read our minds. As it is, she seems to me to identify reading our minds with knowing when they are being watched.

2) As to the ASPCA director's comment. I give it the same interpretation. Dogs reacting to small changes in body chemistry may explain why they seem to be able to anticipate our actions ("telepathy"), and why they seem able to "predict" seizures. Of course they are doing nothing of the sort. They are merely reacting to scents that we are unable to perceive. These small changes in body chemistry MAY precede a seizure. The dog's nose MAY also be sensitive enough to detect changes associated with cancer (particularly skin cancer), before the cancer is noticed by it's owner. This does not seem to me to be an unreasonable theory.

reply: I might agree with you if the article didn't end with the Donaldson quote and if that quote did not explicitly say "this might explain dog telepathy." The body of the article does not stray from what the scientists actually did, but it was sandwiched by irrelevant and misleading references to paranormal canines.

Finally, I agree that both the title and the first paragraph of Viegas's article were at best an unfortunate choice and at worst confusing. However, even after reading the New Scientist item, I do not find the Discovery.com article as egregious as you do.

Anyway we are both entitled to our opinions. Thank you for listening to mine.

Glen

reply: I may be more sensitive than most readers of Discovery.com since a) that site seems to have more than its share of paranormal and pseudoscientific "sightings"; and b) there is already enough non-sense about [psychic pets](#) being spread by Rupert Sheldrake and others.

Then again, you just may be a very charitable chap.

19 Dec 2000

The article about "can dogs read out minds?" in discovery.com is completely ridiculous, but not for the obvious reason of interjecting telepathy into the equation. The fact that a study was done on if dogs know what humans are looking at, and that discovery commented on it are silly beyond words. Anyone who has ever had a dog knows 2 things: 1. dogs make eye contact with people. 2. maintaining eye contact with a strange or agitated dog can make it more hostile.

If a dog is happy to see you, it makes and maintains eye contact. When they want something from you, they make eye contact. In fact, just about the only thing that can make a happy dog break eye contact from someone it likes, is if that someone waves a treat or toy off to the side. So in that light, it comes as no surprise that dogs know when people aren't looking.

The real question is if the concept of eyes as "seeing devices" is instinctual, or learned. Given that dogs make eye contact with other dogs, and knowing if a rival dog is looking at you is conducive to canine survival, it doesn't seem like that much of a stretch for dogs to extrapolate that the shiny round things above the human noise flap serves the same purpose as the shiny round things above the doggie noise flap.

-Devon

December 14, 2000. Sheila King, an exercise physiologist at UCLA, sees herself in the tradition of Aristotle and Plato because she, like them, "combined science, philosophy and metaphysics in a unified approach to life." In an article for [MSN.com](#), she claims just about any exercise activity can be a spiritual experience. I suppose for spiritual people just about anything can be a spiritual experience, but they don't usually claim that they are doing anything scientific when they are being spiritual. King does:

The integration of action, thought and emotion creates a vital life force that enhances our workouts along with our quality of life. The new age of science and medicine is beginning to draw on spirituality to help people cope with illness and enhance health,

with good reason: This inner source is a cost-effective therapy with virtually no negative side effects!

She doesn't clarify the scientific notions of a "vital life force" or "inner force", but I'm sure her readers know what she means.

Exercise such as running or cycling produces a natural tendency to focus inward, and requires you to draw on your vital inner force to transcend perceived barriers of intensity, distance or duration.

She doesn't say if this is true for people with gout or tendonitis. But she does claim that

Only a handful of controlled research studies in the United States have explored the mind-body connection, but already these practices have proved helpful in the treatment of conditions such as cardiovascular disease and asthma.

She doesn't mention any specific studies, however, nor does she specify what mind-body practices were "helpful" nor exactly how they were "helpful" in treating cardiovascular disease and asthma.

King does seem to have some useful common-sense and non-controversial advice for relaxing after exercise, however, such as listening to relaxing music and doing some controlled breathing. Her advice to examine our goals and do some thinking while exercising would no doubt meet with Aristotle's approval.

[thanks to Devon]

December 7, 2000. Sometimes stories about alternative "medicine" make me sick, like [this one](#) about a traditionally trained immuno-geneticist who dresses up in a bear suit and treats his patients with feathers and totems. According to Dr. Michael Samuels:

What you know is a good doctor has moments where they look into your eyes, where you can feel the interconnection with you — a merger — their heart opening. When that's missing there's a coldness that the patient feels and the healing is incomplete.

I've never had such a moment and, if I prayed, I'd pray that I never do. I don't want a soul mate when I go to a physician, but I am getting the feeling that I'm unusual in this respect.

[thanks to Jon Henrik Gilhuus]

reader comments

08 Dec 2000

In regards to your comment "I don't want a soul mate when I go to a physician, but I am getting the feeling that I'm unusual in this respect."

Well, think about the role Doctors play. They save lives. They provide salvation from suffering and death. They provide what many religions

promise. We demand perfection from doctors. We have essentially elevated them to demi-god status. It should come as no surprise that in a species that seems bent on seeking and creating gods and divinity, that when presented with a physical, tangible facsimile of that which is sought, we would project our expectations of the divine onto it. In the western, Christian areas, we've been taught that the furious angry god of the old testament is now a loving, tender, caring father who will provide our every need. It should therefore come as no surprise that such expectations are projected onto doctors too.

This begs the question as to why this is a recent phenomenon? Considering that up until recently, "healers" have not been terribly successful, and the image of god as a cuddly loving father is a relatively recent phenomenon due to increased literacy in the past 300-500 years, thus revoking the ability of the literate priests from emphasizing the blind obedience to a mighty, jealous deity. So both living gods, and the expectation of nurturing and caring from a god have overlapped. When our living gods fail, or aren't able to make us feel loved and special while performing their miracles on us, we feel cheated, and turn to traditions that make us feel good about ourselves. Traditions that come from cultures that were blessed with vastly shorter lifespans.

Devon

reply: You might want to invest a few \$ in a book on world religions.

October 31, 2000. Perhaps it is the obligatory stupid haunting story for Halloween, but Jaymi Freiden of the [Savannah Morning News](#) has a feature article about ghosts haunting the local Harley-Davidson Motorcycle shop. The story focuses on the work of Al Cobb and his little band of amateur paranormal investigators who call themselves the Searchers. They use scientific equipment because "People believe you more when you have scientific data."

They have an infrared thermal scanner that sends out a beam of red light that picks up on temperature changes. A change in temperature can mean a ghost is using the energy in that area, either increasing or decreasing the temperature, Thomas said. It can also affect magnetic fields, which is why some members carry a compass. Then there are the cameras - both still and video - used to record anything unusual that might be lurking.

How they know that ghosts use energy and change the air's temperature is not mentioned. Nor are we told what evidence there is that ghosts affect magnetic fields. But at least the *equipment* is scientific, even if the people using it are not.

Freiden reports that "it's been said that Savannah is the second most haunted city in America, behind Charleston and ahead of New Orleans." I'm sure it has, but how would one go about testing this claim with all that scientific equipment?

August 21, 2000. "The icecap at the North Pole has melted for the first time in 50

million years, reinforcing fears about global warming," writes Severin Carrell of the [Independent News \(UK\)](#). No doubt Mr. Carrell did an investigation after reading *The New York Times* (see next entry).

August 19, 2000. *The New York Times* reported today that "An ice-free patch of ocean about a mile wide has opened at the very top of the world, something that has presumably never before been seen by humans and is more evidence that global warming may be real and already affecting climate." The front page story had the headline: North Pole is Melting. Actually, about 10 percent of the Arctic Ocean is ice-free in any given summer, many people have seen an ice-free pole, and this is not necessarily related to global warming. This doesn't mean that Arctic ice is not [declining](#), however.

August 14, 2000. [CNN.com](#) and the [NandoTimes](#) published an Associated Press report which glowingly and uncritically says that some researchers have established that acupuncture is "an effective treatment for cocaine addiction." The study by some Yale scientists was published in the [Archives of Internal Medicine](#). The actual study only claims that "acupuncture shows promise for the treatment of cocaine dependence" and that further research "appears to be warranted." This was based upon the following results:

Examination of urine data for patients who completed the 8-week trial showed that acupuncture completers provided significantly more consecutive cocaine-negative urine samples than did either the relaxation control group (P = .002) or the needle-insertion control group (P = .02) (acupuncture, 7.23 6.77; needle-insertion control, 3.35 3.55; relaxation control, 2.14 3.37; F_{2,49} = 5.37; P = .008). Acupuncture completers were also significantly more likely to provide 3 consecutive cocaine-free urine samples in the final week of the study (acupuncture, 54% [7/13]; needle-insertion control, 24% [4/17]; relaxation control, 9% [2/22]; F_{2,22} = 8.76; P = .01).

The Associated Press article fails to note that of the 82 participants in the study, 30 dropped out before the study was completed. The AP also failed to note that the study only followed the addicts for eight weeks and that the greatest dropout rate was in the group getting acupuncture (64%). Those getting fake acupuncture had a dropout rate of 37% and those in the relaxation group had a dropout rate of only 19%.

Based on these results, if I had a vote on funding further research, I'd vote no. The Associated Press article quotes Arthur Margolin, Ph.D., one of the Yale researchers, as saying "the results suggest the need for increased study of acupuncture *and other forms of alternative medicine* [emphasis added]." If he said this, he was hyping the study beyond tolerable puffery. Neither science nor journalism, much less the public, is served well by exaggerating the significance of research results.

Arthur Margolin responds:

16 Aug 2000

The "quote" of mine you cite from CNN (which, incidentally, I have been unable to find on their web-site -- your direction to it would be appreciated) is in fact a misquote.

reply: That doesn't surprise me. Actually, the quote is from an Associated Press story which is posted by [CNN](#) and by [Nando Times](#).

What I have said is that our study suggests that complementary and alternative (CAM) therapies can be fairly investigated in rigorously controlled randomized clinical trials.

reply: Unfortunately, this point is not made either in the Associated Press story or in your article in the *Journal of Internal Medicine*.

I understand that the degree to which our study satisfies that description is open to interpretation; however, my statement was directed to individuals, particularly advocates of CAM, who may feel that the investigation of CAM therapies within a biomedical framework, without extreme prejudice to those therapies, is simply not possible. Whether or not CAM therapies should be further studied is another matter. The findings of our study could not of course supply the foundations for inferring that proposition; I think many have run afoul of the logical incoherence of attempting to derive "an ought from an is". It is interesting to me that you may have fallen into this trap by seeming to suggest that CAM therapies should not be further investigated, and furthermore, the tone, and curtness, of your message seems to be such as could only emerge from one who holds what seems to be the result of an unstated, and I fear unstateable, set of "inferences" leading to the belief in question with all of the certainty of a logically demonstrable truth!

Is this a new form of skeptical logic?

reply: Many, indeed, have run afoul trying to derive an ought from an is, but I fail to see the relevance of that point here. A logical point that does seem pertinent here, though, is the non sequitur. I don't see how it follows that I seem "to suggest that CAM therapies should not be further investigated" from my statement: "Based on these results, if I had a vote on funding further research, I'd vote no." I don't think your results were significant enough to warrant spending my money on further investigation. I have no problem with you finding some private party who is willing to fund further research of auricular acupuncture to treat cocaine addiction. And I certainly do not have a general objection to scientifically investigating CAM therapies. Even if I did, such is certainly not implied by my statement.

If you read our paper in the Archives of Internal Medicine, you will

find that in the Discussion section we point out a number of limitations of our study which decrease the generalizability of our findings.

Sincerely,

Art Margolin

reply: I did read your paper and I did note that the Associated Press article makes a stronger claim than you do for acupuncture as an effective therapy for cocaine addicts. I wrote to you to find out if you were quoted accurately (actually, you were paraphrased) because I know that the media often hypes up scientific stories and exaggerates their significance. Scientists do this also and I checked with you to find out if the AP had got it right. Apparently, they didn't. The AP story gives no hint that you think your study is a model for other CAM studies and shows that rigorous science can be done in that area.

August 4, 2000. [Shirley MacLaine](#) has her own website where she promises to spiritualize the Web. In case you don't know who she is, she is the author of *Out on a Limb*, a book serialized for television by ABC, in which she describes, among other things, her channeling guru. Her credentials? [She once was a Moor who had an affair with Charlemagne and bore him three children](#), but that was long ago.

[thanks to Joe Littrell]

July 10, 2000. The Sci Fi Channel has begun a nightly show called "Crossing Over With John Edward." Edward will do a [James Van Praagh](#) routine, claiming to speak to dead people of interest to those in the audience. [Salon.com](#) says the show starts at 8 pm; the [SciFi program guide](#) says it starts at 11 p.m. and that the first episode was July 9th. Check your local television guide for this exciting new program. By being on the Sci Fi channel, is Edward admitting that this stuff is fiction?

[thanks to Joe Littrell]

July 7, 2000. [The Washington Times](#), owned by the Rev. Sun Myong Moon's Unification Church, features an article by Valerie Richardson on a vote taken by the Colorado Board of Education to urge schools to display the motto "In God We Trust." In a deliberate example of the religionization of journalism, Richardson writes that the vote was "a deliberate challenge to the growing secularization of public education." Isn't *public* education secular by nature in this country?

[thanks to Jon Henrik Gilhuus]

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ontology

Ontology is a branch of metaphysics which is concerned with being, including theories of the nature and kinds of being. Monistic ontologies hold that there is only one being, such as Spinoza's theory that God or Nature is the only substance. Pluralistic ontologies hold that there is no unity to Being and that there are numerous kinds of being. Dualism is a kind of pluralistic ontology, maintaining that there are two fundamental kinds of being: mind and body.

further reading

- [ontology and metaphysics](#) - the *Dictionary of Philosophy of Mind*
- [ontology](#) - *Catholic Encyclopedia*



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 [metaphysics](#)

metempsychosis

Metempsychosis is the belief that at death the soul passes into another human or animal body.

See related entry on [reincarnation](#).

Last updated 12/30/01

[metoposcopy](#) 

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Internet Bunk features WWW sites that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Because there are millions of such sites, we try to present only the most egregious and offensive. Readers are encouraged to send *Internet Bunk* material to:
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[The Alternative Science Pages of Richard Milton](#)

Richard Milton's defense of "alternative" science is a textbook case of **Why Intelligent People Believe Dumb Things**. Nearly every logical fallacy and psychological foible that hinders us from being fair and accurate in our assessment of claims and arguments regarding [science](#) and the paranormal is exemplified by Milton.

selective thinking

Let's begin with his version of the "they laughed at Galileo, so I must be right" fallacy, a *non sequitur* variation of [selective thinking](#).

In his book *Alternative Science*, and on his website under what he calls **Skeptics who declared discoveries and inventions impossible**, Milton lists a number of inventors and scientists who struggled to get their ideas accepted. Many were ridiculed along the way. But, like many others who commit this fallacy, Milton omits some important, relevant data. He does not mention that there are also a great number of inventors, scientists and thinkers who were laughed at and whose ideas have never been accepted. Many people accused of being crackpots turned out to be crackpots. Some did not. Thus, being ridiculed and rejected for one's ideas is not a sign that one is correct. It is not a sign of anything important about the idea which is being rejected. Thus, finding large numbers of skeptics who reject ideas as being "crackpot ideas" does not strengthen the likelihood of those ideas being correct. The number of skeptics who reject an idea is *completely irrelevant* to the truth of the idea. Ideas such as [alien abduction](#), [homeopathy](#), [psychokinesis](#), [orgone energy](#), [ESP](#), [free energy](#), [spontaneous human combustion](#), and the [rejection of evolution](#)--all favored by Milton--are not supported in the least by the fact that these ideas are trashed by thousands of skeptics.

anomalies and coincidences

Like many believers in the paranormal, Milton is quite impressed with the statistical data of people defending claims that they have scientific evidence for such things as [telepathy](#) or [psychokinesis](#).

Humans have an innate tendency to attribute significance to anomalies and coincidences. ---[John Allen Paulos](#)

He cites Dean [Radin](#) who defends the [ganzfeld](#) experiments and [The Princeton Engineering Anomalies Research](#). In both cases, impressive [statistics](#) are used to support the belief in paranormal phenomena. It does not seem to occur to Milton that there might be alternative explanations for the statistics. Nor does it seem to occur to him that the defenders of these claims have not done a very good job of providing compelling evidence of anything significant. Milton seems to think that the parapsychologists are rejected because they pose some sort of threat to mainstream science. There is no threat. If a reasonable explanation of paranormal phenomena is ever made and compelling evidence is produced to support belief in [ESP](#), etc., mainstream scientists will jump on the bandwagon as they have in the past (see below, the examples of continental drift and pre-Clovis Americans).

ad hominen

Another common fallacy committed by Milton is to attack the motives of those who criticize and reject "crackpot ideas." Milton claims

Some areas of scientific research are so sensitive and so jealously guarded by conventional science that anyone who dares to dabble in them -- or even to debate them in public -- is likely to bring down condemnation from the scientific establishment on their head, and risk being derided, ridiculed or even called insane.*

These allegations may be true, but they are also irrelevant to whether the "sensitive" ideas are true or not. The charges are not true in at least two areas where Milton claims it is forbidden to do research: [cold fusion](#) and Darwinism. [Research continues](#) at several labs into [cold fusion](#), although it is apparently the case that the [Department of Energy](#) considers cold fusion to be forbidden territory. Darwinism (natural selection), on the other hand, has been attacked from within the ranks of scientists almost from its inception. Even Darwin didn't think natural selection could completely explain evolution (See [The Descent of Man, and Selection in Relation to Sex](#)). Like many critics of evolution, Milton does not understand Darwinism. But that is another fallacy.

the straw man

Milton's attack on Darwinism is an attack on a position quite distinct from the theory of natural selection. Milton attacks an idea few, if any, hold today. He attacks an ideology he characterizes as a godless philosophy of materialism, embracing the meaningless of life in a dog-eat-dog world of brute aggression. Darwinism implies nothing about the existence of God or a spiritual realm. It implies nothing about a Creator who does or does not meddle in evolution. It implies nothing about the kind of social world we have or should have. An evolutionary biologist is certainly free to believe that God designed evolution.

more selective thinking

Milton ignores the fact that science has nothing to gain by believing what is false. Unlike Milton, who sees scientific beliefs as essentially ideological, scientists as a group have nothing at stake should the facts of nature turn out to be otherwise than currently believed. Of course, individual scientists from time to time get stuck in ideological and idiosyncratic corners, but science as a whole is an enterprise that is self-correcting. He attacks scientists for not accepting the criticisms of thinkers and writers who criticize Darwinism. But he does not see that these ideas are rejected either because their authors are barking up the wrong tree (attacking straw men) or they have not made their case convincingly. Milton should review the Alfred Wegner case for an example of how science really works, because it is quite different from his notion of conspirators guarding the gates of error and rejecting such things as homeopathy or [iridology](#) "because they threaten to violate the accepted canons of scientific rationalism."* Milton seems to have little appreciation for the fact that it is easy to find confirmation for just about any hypothesis and that one must constantly be on guard against [confirmation bias](#), [self-deception](#), [wishful thinking](#), and other psychological hindrances that can lead to [pathological science](#). Examples abound in his pages, but one of the weakest arguments he has is given in favor of a Russian astrophysicist, Mark Zilberman, who has found a [correlation](#) between the 11-year cycle of solar activity and winners of the lottery in Russia and France. Milton seems to think this is an amazing feat and indicative of ESP "modulated by external geophysical factors." He can't understand why scientists are not beating a path to Zilberman's door.

Alfred Wegener and continental drift

In *The Origin of Continents and Oceans* Wegener proposed the theory of continental drift against the prevailing theory that the earth was formed by cooling from a molten state and contractions. "Wegener's mode of reasoning lent itself to criticisms and counter-arguments. Wegener made assertions that could be checked and refuted as further evidence came in. He left room for his speculations to be superseded" (Radner & Radner, 92). Wegener did not have disciples, but sympathizers who "acted like scientists." Yet, Wegener's idea that continents move was rejected by most scientists when it was first proposed.

Stephen Jay Gould notes that when the only American paleontologist defending the new theory spoke at Antioch college (where Gould was an undergraduate at the time), most of the audience dismissed the speaker's views as "just this side of sane" (Gould, 1979, 160). A few years later, all the early critics of the new theory would accept it as true. Why? Was it simply a matter of Wegener and a few others jumping the gun by accepting a new theory before the evidence was sufficient to warrant assent? Were the latecomers 'good' scientists, waiting for more facts to confirm the theory? Gould's view is that dogmatic adherence to the view that the ocean floor is solid and unchanging was the main stumbling block to acceptance of the new theory. Most scientists rejected continental drift because it did not fit with their preconceived ideas about the nature of the earth's crust. They assumed that if continents did drift they would leave gaping holes in the earth. Since there were no gaping holes in the earth, it seemed unreasonable to believe that continents move. The theory of continental drift, says Gould, "was dismissed because no one had devised a physical mechanism that would permit continents to plow through an apparently solid oceanic

floor." Yet, "during the period of nearly universal rejection, direct evidence for continental drift--that is, the data gathered from rocks exposed on our continents--was every bit as good as it is today." Continental drift was considered *theoretically* impossible by some, even if it were *physically* possible for continents to move. The new theory could not be made to fit the theoretical model of the earth then universally accepted.

The theory of plate tectonics was then proposed--the idea that the continents ride on plates which are bounded by areas where new crust is being created from within the planet and old crust is falling into trenches. This provided *a mechanism which explains how continents drift*. Continental drift, according to Gould, came to be accepted not because more facts had been piled up, but because it was a necessary consequence of the new theory of plate tectonics. More facts were piled up, though--facts for the new theory of plate tectonics, of which the theory of continental drift is an essential element. Today, it is taken as a fact that continents move. Yet, the exact mechanism by which plates move is still incompletely understood. This area of science will no doubt generate much debate and theorizing, testing of hypotheses, rejection and/or refinement of ideas.

The continental drift episode is a good example of how science works. To someone who does not understand the nature of science, the early rejection of the idea of continental drift might appear to show how dogmatic scientists are about their pet theories. If scientists had not been so devoted to their belief that the earth's crust is solid and immovable, they would have seen that continents can move. That is true. However, the fact that Wegener's theory turned out to be correct does not mean that he and his few early followers were more reasonable than the rest of the scientific community. After all, *Wegener did not know about plate tectonics and he did not provide an acceptable explanation as to how continents might move*. Wegener argued that gravity alone could move the continents. Gould notes: "Physicists responded with derision and showed mathematically that gravitational forces are far too weak to power such monumental peregrination." Alexis du Toit, a defender of Wegener's theory, argued for radioactive melting of the ocean floor at continental borders as the mechanism by which continents might move. "This [ad hoc hypothesis](#) added no increment of plausibility to Wegener's speculation," according to Gould (1979, 163).

It is true that the idea that the earth's crust is solid and immovable has been proved wrong, but Wegener didn't prove that. What his theory could explain (about rocks and fossils, etc.) other theories could explain equally well. However, in the end, the idea of continental drift prevails. It prevails because the dogmatism of science--the tendency to interpret facts in light of theories--is not absolute but relative. Gould notes with obvious admiration that a distinguished stratigraphy professor at Columbia University (where Gould did graduate work), who had initially ridiculed the theory of drifting continents, "spent his last years joyously redoing his life's work" (Gould, 1979, 160). It is hard to imagine a comparable scene involving any of the scientists admired by Milton.

ad hoc hypotheses

One characteristic of Milton's "alternative" sciences that distinguishes them from real science is their reliance on [ad hoc hypotheses](#) to explain the mysterious mechanisms behind homeopathy, psychokinesis, ESP, perpetual motion machines, spontaneous

human combustion, etc. How *homeopathy* is explained will serve to demonstrate this point.

[Homeopathy](#) is a system of medical treatment based on the use of minute quantities of remedies that in massive doses produce effects similar to those of the disease being treated. Advocates of homeopathy think that concoctions with as little as one molecule per million can stimulate the "body's healing mechanism." They even believe that the potency of a remedy increases as the drug becomes more and more dilute. Some drugs are diluted so many times that they don't contain any molecules of the substance that was initially diluted, yet homeopaths claim that these are their most potent medications! Critics maintain that such minute doses are unlikely to have any significant effect on the body. The critics base their belief on what they know about the body and how it works. Homeopaths base their belief on [anecdotes](#) and the metaphysical notion that like heals like. They have resorted to various ad hoc hypotheses to explain how a negligible or non-existent amount of a substance could have any effect on the body. They have appealed to various healing "energies" of "vital forces" bringing this, that, or the other into "harmony." The explanation that seems to have the most favor among "alternative" scientists is, however, the theory of water memory, the notion that "that during serial dilution the complex interactions between the solvent (water) molecules are permanently altered to retain a "memory" of the original solute material."*

Not only is there no evidence that such memory occurs, there is no explanation as to *how* such an event could occur. Current chemical knowledge cannot explain how water could "remember" a molecule that is no longer present. Thus, the expected and reasonable response of the scientific community when presented with homeopathic studies that support the notion that a homeopathic potion is effective is to assume that something else besides efficacy of the potion explains the results. Usually, that something else is [the placebo effect](#), bias in experimental design, methodological or calculative errors, or even fraud. Until homeopaths can provide a reasonable explanation for how such diluted potions can affect anything, it would be unreasonable for the scientific community to respond otherwise. Do "alternative" scientists really think that it would be reasonable to abandon hundreds of years of knowledge and experience, to give up all the established principles of chemistry, on the chance that someday someone might find a mechanism which explains how nothing affects something?

If and when the "alternative" scientist finds a plausible explanation for how actual or virtual non-existent molecules have an effect on the human body, the scientific community will have to alter its basic beliefs about chemistry. Until then, however, given the accomplishments of chemistry, it would be egregiously unreasonable to throw it all away in the hopes that there really is a mysterious force in the universe by which homeopathy and all chemical processes work.

the conspiracy theory and the bias of science red herrings

Because scientists almost instinctively reject studies, no matter how well-designed they seem to be, that provide supportive evidence for "alternative" scientific notions, people like Milton argue that there is a conspiracy in the scientific community to stifle the truth. They also argue that the scientific community is so blind and biased

that they refuse to consider evidence that upsets their pet beliefs. These two approaches seem to me contradictory rather than complementary. Either scientists know the "alternative" scientists are on to something, so they conspire to stifle them, or the scientists are just biased and bigoted. In any case, Milton reverts to attempts at "censorship" by defenders of science as the evidence for both claims.

Much of what Milton considers to be attempts at censorship have nothing to do with censorship at all. He raises issues that are red herrings, e.g., legitimate criticism of the media for promoting junk science in programs such as the [Mysterious Origins of Man](#) and [cases of scientists](#) who are paranoid about their research or who have been ostracized by colleagues for their weird ideas.

Milton seems to have a naive view of open-mindedness. He calls [CSICOP](#) the Paradigm Police and takes a dim view of anyone who criticizes, boycotts, protests, etc. the promotion of junk science. He seems to think that what is true in politics ought to be true in science. We should have laissez faire science and let the most popular view win out. Milton seems to think that we should determine scientific truth by public vote. He sees no harm in letting pass egregious abuses of science (such as [Mysterious Origins of Man](#)) and monstrous falsehoods (such as, there is no proof for evolution, which is just a theory) in the name of "free speech." To rebel against the bunk promulgated by the mass media, school boards, etc., is, in Milton's view, a type of oppression.

Even if some scientists call for banning a network from the airwaves for promoting pseudoscience, there is no systematic attempt to censor weird ideas by any scientific organization. There is no persecution of pseudoscientists, no burning at the stake, no secret cabal blackballing those with new notions about the nature of reality. There is a requirement that ideas that challenge fundamental ideas in any science prove their worth. When they do, they will bump out the old ideas. Witness what has happened recently in American archaeology with regard to [Clovis and pre-Clovis](#) human settlements. Scientists who were on the outside, ridiculed by their peers, ostracized, etc., for their ideas about [pre-Clovis inhabitants](#) are gradually getting a strong hearing. Why? Because they are delivering the goods, i.e., piling up the evidence. The scientists Milton weeps for are not delivering the goods. If and when they do, like Wegener, like [Albert Goodyear](#), they will prevail.

arguments from ignorance

Another common error Milton makes is to argue that something is true (such as clairvoyance) because a bad argument was given to show that it is false. The [argumentum ad ignorantiam](#) can be found at several places on Milton's pages, but I will focus on just one. Milton defends the significance of unrelated coincidences such as dreaming of an airplane crash in a foreign country and waking to find that the news is reporting that there was an airplane crash in a foreign country. His defense is built on showing that a parapsychologist, Dr. Richard Wiseman, gave [a false but persuasive explanation](#) of such coincidences as being expected by the laws of probability.

First, Wiseman's argument is not very persuasive and I wonder if Milton is being disingenuous here. Second, no matter how many bad arguments against clairvoyance Milton can produce, they are irrelevant to whether there is any good positive

evidence for such a thing. Wiseman's argument, as presented by Milton, claims that there are so many air crashes every day that dreaming of one would be very likely to coincide with an actual air disaster. A better explanation would be that fear of airplane crashes is widespread and the number of people who dream of such things every night is probably very great, so on any given night it is highly probable that there is at least one person of the six billion on the planet who dreams of an air disaster in a foreign country.

false labeling

Another common error Milton makes is to mislabel things. For example, he labels as pseudoscience Richard Dawkins analogy of the 'evolution' of [biomorphs](#) with the 'evolution' of living creatures. This misclassification exposes Milton's malevolence (if it is intentional and he knows this example has nothing to do with pseudoscience but he thinks it will help his anti-evolution cause) or his ignorance regarding pseudoscience. Milton may truly believe that Dawkin's analogy is a false analogy, but you might as well call nuclear physics a pseudoscience for having made an analogy between planets revolving around the sun and electrons revolving around the nucleus of an atom. A [pseudoscience](#) claims it is science when it is not. The distinguishing characteristic of pseudoscience is not logical error, nor is it empirical error. What distinguishes pseudoscience from science is that the former proposes theories which cannot be tested in any meaningful way, or if the theory can be tested, its adherents refuse to accept refuting evidence as valid. The pseudoscientist would rather reject hundreds of years of investigation, argument, theorizing, testing, revising, etc., than ever give up his or her belief, regardless of the evidence. So-called [creation science](#) is the paradigm of a pseudoscience. Pseudoscience is static and leads nowhere. It generates no fruitful discussion about the nature of things and produces nothing but dogmatists who will retain their views until the end of time. Science is dynamic and leads to all kinds of interesting discussions about the nature of things and produces a seemingly endless array of ideas and techniques, many of which supercede and supplant earlier ideas and techniques.

false dilemmas

Milton seems driven by a need to propose false dilemmas. The basic form of his argument goes like this:

Either we believe my side or we believe these liars, cheats, deceivers, frauds, pseudoscientists, false historians, conspirators, and dogmatists. Clearly, the second choice is unacceptable. Therefore, we should believe my side.

Milton's approach reminds me of Arlen Specter's proposal to his colleagues during the Clarence Thomas hearings: Who do you believe? The distinguished gentleman or the slut? (Apologies to Dave Barry, whose created this caricature question that captures the essence of Specter's line of questioning.)

There are always third or fourth alternatives to Milton's proposals because he is so selective in his presentation of evidence and because he mixes legitimate criticism (e.g. of CSICOP and the Gauquelin affair, even though CSICOP turned out in the long run to be right about Gauquelin's data) with misunderstanding. He doesn't seem

to have a clue as to what Carl Sagan meant by the following

We've arranged a global civilization in which the most crucial elements profoundly depend on science and technology. We have also arranged things so that almost no one understands science and technology. This is a prescription for disaster. (from [*The Demon-Haunted World: Science as a Candle in the Dark*](#))

Sagan was lamenting, as he had done many times before, the lack of communication between scientists and the public; the poor use of the mass media to convey what science is, does and has yet to do; and the inadequate job we are doing in educating our young people about the beauty and wonder of science. Milton thinks Sagan was claiming that science is an elitist affair, a claim Milton uses as a springboard to launch into his defense of eccentrics, crackpots and loners as the real heroes of science, the point of which is difficult to ascertain. It seems that he thinks that since some great scientists were crackpots, all crackpots are great scientists. Or, perhaps he means to argue that since some crackpots did good science, we should never close the door on any crackpot. However, if science opened the door and took seriously every crackpot idea that is proposed, nothing of worth would ever get done. The burden of proof is always on the crackpot, the new kid on the block, the one who wants to knock off hundreds of years of research, argument, theorizing, testing, etc., with a single dream. "I have a dream" might be a wonderful line in politics, but it has no intrinsic value in science.

It has been said that "Today's mighty oak is just yesterday's nut that held its ground." That's one way to look at it.

If you smash a nut with a hammer, nobody will give it any attention tomorrow. That's another way to look at it.

further reading

9 Feb 2002

I've finished half of Milton's Alternative Science and on page 120 I came across a list that involves military incompetence. After reading the list I realized that they described Milton exactly. I can only agree that true to his own rationalization that he his scientifically incompetent.

us/

- [Richard Milton responds](#) (A piece of disingenuous word juggling, distortion and evasiveness with so little substance it is not worth responding to in detail. Either the man can't read or he has intentionally twisted nearly every criticism I've made of his work, save one (he's right about the DOE's stifling of research on cold fusion). He doesn't seem to see the difference between "exemplifies" or "seems to believe" with "says." He says he doesn't "favor ideas" and that "I present empirical evidence for consideration by my readers. (As I make abundantly clear, I am a reporter)." Since he does not say "I believe" this or that, his website should not be treated as if he were an advocate of the ideas he presents. When he labels something "Scientists and inventors who were ridiculed by science" we are supposed to read this as just a report by a reporter, noting a fact. We are not supposed to think that he

might have some reason for the label or the selection of scientists he makes. Another label: "Taboo subjects. Investigate these and you're a crackpot." This label and these subjects are selected for no reason? What Milton does might be called "alternative" journalism.)

- [RIE - Alternative Physics and Conspiracy](#)

[Gould, Stephen Jay. *Ever Since Darwin* \(New York: W.W. Norton & Company, 1979\).](#)

[Radner, Daisie and Michael. *Science and Unreason* \(Belmont, California: Wadsworth Publishing Co., 1982\).](#)

more Internet Bunk

- [The Millennium Group - Science in the Service of Humanity](#)
- [Joe Firmage & The Truth](#)
- [Pharaoh's Pump Foundation](#)
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pious fraud

A pious fraud is someone whose fraud is motivated by misguided religious zeal.

Examples of pious frauds include [Catalina Rivas](#) and other alleged [stigmatics](#) such as Padre Pio; [Sister Lucia dos Santos](#), who claimed the Virgin Mary appeared to her and two other kids at Fatima, Portugal, in 1917; the creator of the [shroud of Turin](#); [psychic 'surgeon' Stephen Turroff](#), and anyone who has lied about witnessing a [miracle](#).

Last updated 12/30/01

[the placebo effect](#)



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[miracles](#)

reader comments:

miracles

30 Jun 1999

I too, am a skeptic.....be that as it may, my firm stance was shaken a few years ago. Scouting the area around our new home in Texas, we discovered a monastery. Nondescript place, high on secluded hilltop....hours of driving to get to it.

The black and white brochure simply said it housed a 'weeping icon'....no fanfare, no expensive admission (free). What we saw, smelled and tasted defied my clinical and non-religious attitudes. In a tiny mobile home, plastic flowers in plastic vases, propped up on an easel...was an icon. Silence prevailed in the room, there were only three of us present...in no way could a tiny motor have been operating. The back was in full sight, no wires observed either. The icon was inches from my nose as I asked for a closer look...no pinholes , but oil saturated it.

Explainable by wishful thinking, by group hallucination, by greed on the part of the presenter...none of these criteria fit. I cannot say I had a 'religious conversion' afterward, although the very nice monk did use a cotton ball and blessed our feet and hands, however my normal cynicism was shaken to its core.

I am telling you all of this to remind you that , not often, but 'occasionally' there are things we cannot understand in our present containers as humans. I still question and most often find logic and scientific basis for things...however, in the back of my mind's eye...remains the image of that weeping icon.

Barbara Johnston

reply: As Joe Nickell so aptly put it, you are one of many who are [Looking for a Miracle](#).

Non-drying oils, such as olive oil, have been used in the past to saturate statues that later appear to be bleeding or weeping. The monks count on your belief in their honesty and integrity, as well as your desire to see a miracle. Perhaps they justify their pious fraud because they think they are helping bring people to a belief in God. They might ask themselves, what kind of God wants admirers who must be tricked into admiration?

For more on the oil trick see [Joe Nickell](#).

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mokele-mbembe

The mokele-mbembe is an alleged living sauropod dinosaur now living in the Likouala swamp region of the [Republic of Congo \(Zaire\)](#). The animal has allegedly been encountered by local pygmies who have given the creature its name. *Mokele-mbembe* means, depending on your source, "rainbow", "one that stops the flow of rivers", or "monstrous animal." The mokele-mbembe is allegedly the size of an elephant (the favorite prey of the local pygmies) with a very long reptilian neck. The creature is said to be hairless and reddish-brown, brown, or gray, with a tail five to ten feet long. The creature apparently spends most of its time in the water, but the pygmies claim they've seen prints left on land of a three-clawed foot.

Reports of this creature have been circulating for the past two hundred years, yet no one has photographed the creature or produced any physical evidence of its existence. Enthusiastic cryptozoologists like Roy Mackal (*A Living Dinosaur? In Search of Mokele-Mbembe*, 1987) think we should give as much credence to the mokele-mbembe as to the [Loch Ness monster](#). True, and it seems unlikely the creature exists, since there would have to be a significant number of the huge creatures to continue to produce descendents after all other dinosaurs were extinguished some 70 million years ago. Yet, they seem to have flourished without leaving a single carcass, bone fragment, or fossil.

[Cryptozoologists](#) argue that since a coelacanth was caught off the coast of South Africa, it is reasonable to think that a dinosaur might also have avoided detection for a few million years. However, there is a big difference between finding a fish thought to be extinct and finding a dinosaur. The fish is small and lives in the ocean. Oceans cover two-thirds of the earth and have depths of up to 35,000 feet. That is a lot of space to hide specimens and fragments of specimens. Dinosaurs are large, occupied the third of the earth mostly visible to its other inhabitants, and thus would be much more likely to be detected than the coelacanth.

See **related entries** on [cryptozoology](#) and the [Loch Ness monster](#).

further reading

- [Mokele-mbembe](#)
- [Mysterious Creatures](#)
- [Mokele M'Bembe - The Hunt For The Living Dinosaur](#)

- [Mokele-Mbembe](#)

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[miracles](#)

[moment of silence](#)

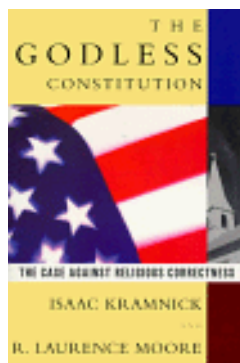


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[Kramnick Isaac and
R. Laurence Moore.](#)

[The Godless](#)

[Constitution : The](#)

[Case Against](#)

[Religious Correctness](#)

[\(W.W. Norton & Co.,
1997\).](#)

moment of silence

"A moment of silence" (a.k.a. "moment of silent meditation") is a code expression for [prayer time](#). The United States Constitution forbids any religion, including Christianity, from being the state religion. It forbids forcing every American to kowtow to the beliefs of any sect. The U.S. Supreme Court has ruled that requiring prayer in government institutions is unconstitutional, so Christians who want to have a public display of religious worship in places such as public schools, high school football fields, or government offices have created the ruse of the moment of silence. Even though judges and justices know that the moment of silence is code for prayer time, they have encouraged the ruse to flourish by publicly advising that laws requiring moments of silence are constitutional as long as they don't specify what is to be done during the moment of silence. Christian judges have rationalized their rulings by pretending that they don't know for sure that the reason for the law is to have a public display of people praying while pretending to be observing a moment of silence. Encouraging hypocritical behavior has become a pastime among certain Christian evangelists and judges, and the moment of silence marks one of their proudest achievements.

One thing the courts have not requested is proof that these moments of silence, which deprive people of their liberty, are necessary to accomplish some legitimate civic purpose. The moment of silence is a way to shut up those who loudly proclaim their fear of oppression in the name of religion. Those who think that prayer is the answer to our problems should consider that if this were a Christian nation, [the Bill of Rights would be gone](#). The history of Christianity is not the history of liberty, but of repression, oppression, and censorship. The Europeans who first displaced the natives of this country came here because Christian sects controlled governments and oppressed those who didn't share their religious views. Unfortunately, it turned out that most of the pilgrims who arrived here were just as intolerant as those who had oppressed them in Europe. Freedom of religion meant not just freedom to practice your own religion but power to enforce that religion on anyone in your political community. The fruit doesn't fall far from the tree, as they say. Those who stand around in silence while religion is publicly united to our schools, our patriotic songs, our civic meetings, and our sporting events will regret it when they realize that the only silence truly desired by the Christian lawmakers and judges pushing these moments of silent meditation is the silence of the opposition.

See related entry on [creationism](#).

further reading

- [Americans United for Separation of Church and State](#)
- [Authors argue the religious right is wrong about the Constitution](#)
- [Va. Minute Of Silence In Schools Is Upheld](#) and [Commentary](#)
- [Good and Evil](#)
- [Georgia Teacher Suspended For Occult Rituals](#)
- [South Rebels Again](#)
- [Christian organizers in South defy Supreme Court's prayer ruling](#)
- [Religion and Fiction](#)
- [SUPREME COURT LETS STAND BOGUS "STUDENT LED" PRAYER LAW](#)
- ["SOLEMNIZATION" IN TEXAS -- ANOTHER RUSE FOR MAJORITY DICTATED PRAYER IN SCHOOLS?](#)
- [Who's kidding whom?](#)
- [Marysville City Council opens with a prayer](#)

[Hayes, Judith. *In God We Trust: But Which One?* \(Madison Wisconsin: Freedom From Religion Foundation, 1996\).](#)

[Kramnick Isaac and R. Laurence Moore. *The Godless Constitution : The Case Against Religious Correctness* \(W.W. Norton & Co., 1997\).](#)

[Mill, John Stuart. *On Liberty*.](#)

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 [mokele mbembe](#)

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Refuge](#)

In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

24

January 13, 2002. Proving that wisdom does not necessarily accompany aging, 75-year old [Fr. Gabriele Amorth](#) confidently boasts of his superstitious notion that the Devil is behind all evil, including Harry Potter. Amorth is proud that he performs countless [exorcisms](#), despite the fact that these days the Catholic Church hardly recognizes Satan as a force to reckon with. "An unnecessary exorcism never hurt anybody," says the good priest who considers the movie "[The Exorcist](#)" to be a documentary of his kind of work. Raised in Italy, where it is common to believe in such things as [the evil eye](#) and the casting of [spells](#), Fr. Amorth has never outgrown his early training in superstition.

Amorth realizes that many people who think they are possessed by the Devil are mentally ill. He requires his victims to first see a doctor, but he doesn't seem to think the mentally ill can't also be possessed. He says he's treated some victims for 16 years. It is ironic that he thinks his victims have sometimes been dabbling in [magick](#).

Amorth has not led any burnings of Harry Potter books, but he believes Satan is behind the books, luring children into supernatural activities. Another irony. The good father preaches a comforting, though diabolical, sermon to evildoers: it's not your fault, the Devil made you do it. He relieves his victims of responsibility and offers his powerful magic to help purify them. If Fr. Amorth is right, we ought to shut down all our criminal courts immediately. Criminals need exorcisms, not punishment. Even the [temple priest in India who recently killed an 8-year old boy](#) to appease some god should have been exorcised, not arrested.

Fr. Amorth is the author of *An Exorcist Tells His Story* in which he expands his victims to include those who are not only *possessed* by the devil but those who are *oppressed* by Satan. Someone should do a book on people like Fr. Amorth who are *obsessed* by the devil. But he does fill a niche. He says he has ten customers a day. You would think a dude as powerful as Satan would be embarrassed by the quality of the opposition.

December 24, 2001. [Pope John Paul II](#) has added the names of three more [saints](#) to his record book. Apparently, John Paul is aiming at naming 500 saints during his reign, which began in 1978. He has already set the record for saint-naming among modern day popes, a record as impressive as Barry Bonds 73 home runs in a season or Hank Aaron's 755 home runs in a career. This latest trinity of halo wearers, however, is likely to raise some sepulchres. Entry into the elite club of pope-named saints requires several [miracles](#). The miracle is that the Catholic Church can find anybody to believe this is happening. These are the new role models for the faithful: [Juan Diego](#), [Josemaria Escriva de Balaguer](#), and [Padre Pio](#).

Juan Diego is the name behind [Our Lady of Guadalupe](#), patron saint of Mexico. His cape of cactus fibers with a [painting](#) of the Virgin, allegedly emblazoned there miraculously in 1531, is an icon on display in Mexico City's Basilica de Guadalupe. The abbot of the basilica in 1996, Guillermo Schulenburg, once proclaimed that Juan Diego is a symbol, not a reality. He also called the pope's beatification of Juan Diego in 1990 the "recognition of a cult." He resigned under pressure ("Vatican elevates Mexico's Juan Diego to sainthood," by Traci Carl, Associated Press, *Sacramento Bee*, December 21, 2001, A20.) Even though it is doubtful whether Juan Diego even existed and probable that the story of his miraculous cloak is apocryphal, the pope proclaimed that Juan Diego performed a miracle by answering a mother's prayers. Her son had jumped from a building and cracked his skull. She [prayed](#) he would not die and he didn't. When you are on a saint hunt, as John Paul is, you don't worry about minor details like the strength of the evidence.

The second person in this blessed trinity certainly existed. Josemaria Escriva de Balaguer was a Spanish priest who founded "[Opus Dei](#)" in 1928. He claimed God told him to do it. "Ascetism, anticommunism, a rigid hierarchicalism, religious militancy and secrecy have become the distinguishing marks of the organization."* [Opus Dei](#), according to Fr. Angel de la Parte Paris, "professes a fundamentalist theology, condemns Liberation Theology, has no concern for social problems, leaves little freedom to an individual's conscience, and is associated with secular power structures." Pope John Paul II loves the organization because it is against lax morals and communism. So did [Robert Hanssen](#), the spy who sold secrets to the communists, went to Church regularly, supported a [stripper](#), and made [sex videos of himself and his wife](#), unbeknownst to her.

Finally, the capuchin monk and self-proclaimed [stigmatic Padre Pio](#) (Francesco Forgione, born in Pietrelcina, Italy in 1887) has been made a saint. He was most likely a [pious fraud](#) with a brain disorder, but he had quite a following amongst women. Padre Pio hallucinated regularly and enjoyed self-flagellation. The Church told him to say mass in private after his cult followers started behaving like shoppers on bargain day, physically struggling for the best pew. The ladies also liked to tear at his vestments, hoping to take home a souvenir relic. Despite Padre Pio's questionable pedigree, he was a made man and there was never any question of his being named a saint. The pope believed in his miraculous powers. In 1962, while still a priest in Poland named Karol Wojtyla, the pope asked Padre Pio to pray for some woman who was thought to be dying of cancer. The woman was given a medical exam and no cancer was found. That's the kind of evidence this pope requires.

December 17, 2001. Yesterday's news was bad as usual. First, we find out that all the anthrax used to terrorize our U.S. Senators originated in a U.S. Army lab. That news was on page 19 of the *Sacramento Bee*. Second, the Chicago police have been accused of abandoning [pseudoscientific](#) crime fighting techniques such as the [polygraph](#) and [voice stress analyzer](#) in favor of the tried-and-true method of torture to get a confession. But what really caught my eye was a story on page 9 about how the U.S. Department of Justice has been lying for years about its efforts to combat terrorism. The authors of the article--Mark Fazlollah and Peter Nicholas of Knight Ridder--didn't accuse Justice of lying, of course. That wouldn't be prudent. Justice has "overstated its record of arresting and convicting terrorists." How? By counting

drunks who cause disturbances on commercial flights as "terrorists." Justice also counts prison riots as terrorism. Shove a judge, you're a terrorist. Threaten to kill *President* Bill Clinton even though he isn't the president anymore and you're a terrorist, according to the FBI. Last year, the FBI claims it had 236 "terrorist" convictions. Congress gave Justice \$22 billion to fight crime, including terrorists. John Ashcroft says that the U.S. government defines terrorists as "those who perpetrate premeditated, politically motivated violence against noncombatant targets." Someone from the Department of Justice should ask him for a clarification because it is obvious that words like 'premeditated', 'politically motivated', and 'noncombatant' are being ignored by some of our finest law enforcement officers.

We should see a substantial increase in FBI arrests for "terrorism" under Robert S. Mueller, who is now the director of the FBI. But I wouldn't feel any safer. Mueller ran the San Francisco U.S. attorney's office for the past three years. That office led the nation in "domestic terrorism" cases filed. My guess is that most Americans don't consider the mentally ill, prisoners and drunks to be in the same class as Mohammed Atta or Osama bin Laden.

December 6, 2001. The FBI has finally done something right. They've captured Clayton Lee Waagner, who is suspected of mailing hundreds of terrorist anthrax threats to abortion clinics. Waagner was a fugitive awaiting sentencing on federal firearms and auto theft convictions. He is also wanted for bank robberies, carjackings and firearms violations in various states. Attorney General Ashcroft says he will prosecute vigorously. The FBI had sent posters of the alleged terrorist to Kinko's copy centers around the country and employees of a Kinko's in Springdale, Ohio, recognized Mr. Waagner when he came in to check his e-mail.

November 11, 2001. *The Sunday Times (UK)* reports that the FBI is seeking out [psychics](#) again, this time to help fight the "war on terrorism." According to the article, Prudence Calabrese, head of [Transdimensional Systems](#), an outfit that trains [remote viewers](#), claims that "the FBI had asked the company to predict likely targets of future terrorist attacks." Angela Thompson-Smith and Lyn Buchanan, former members of the infamous government remote viewing project called [Stargate](#), also claimed that the FBI has sought their advice. Thompson-Smith is Executive Director of [Inner Vision](#) Las Vegas, which offers courses in remote viewing. Lyn Buchanan is part of a group called [Controlled Remote Viewing](#) and claims to have been teaching our military how to remote view for some fifteen years.

This does not come as a surprise. The FBI and CIA are the two most avid promoters of the use of the [pseudoscientific](#) device known as the [polygraph](#). That they would continue to dabble in the [occult](#) long after all reasonable people have abandoned such non-sense should alarm us even if it fails to shock. It is becoming more and more apparent that the quality of investigation done by these two agencies suffers from being done by people who are superstitious and uneducated. If I wanted to gather intelligence about Iraq, Iran, Afghanistan, etc. the first thing I would do is make sure I have plenty of agents who know the languages and histories of those peoples. Such obvious qualifications are not required, however. (See [Peter Beinart's article on the CIA](#) in *New Republic*.) The last thing I would do is hire alleged [psychics](#). But our agencies are more concerned that its agents pass so-called "lie detector" test than it is

that the people they hire be able to gather useful information based upon their having the proper education and training.

The FBI has released [a profile of the anthrax terrorist](#). Does anyone take these people seriously? Remember their [profile of the unabomber](#)? It wasn't even [close](#) (neat dresser and meticulously tidy, an ideal neighbor!). Yet, [Lou Bertram](#), a retired FBI agent who took part in the investigation of the unabomber claims "Absolutely, he fits the profile." Sound like a bit of [shoehorning](#) to me. The fact is that had not newspapers published the unabomber's "Manifesto" his own brother might not have ever suspected him. And had not his brother turned him in, it is unlikely that the FBI would have caught him. After all, they had 17 years to look for him and kept coming up empty.

The FBI profile of the anthrax terrorist is based upon the way he [prints his letters](#). He is not from the Middle East, but an American male. They said some other things so obvious as to sound stupid when mentioned: "He is apparently comfortable working with an extremely hazardous material. He probably has a scientific background to some extent, or at least a strong interest in science...He lacks the personal skills necessary to confront others. He chooses to confront his problems "long distance" and not face-to-face."

Finally, here is the FBI list of "post-offense behavior." Tell me this doesn't describe half the American population after 9-11?

1. Altered physical appearance. 2. Pronounced anxiety. 3. Atypical media interest. 4. Noticeable mood swings. 5. More withdrawn. 6. Unusual level of preoccupation. 7. Unusual absenteeism. 8. Altered sleeping and/or eating habits.

Maybe the remote viewers can tell us whether he wears a moustache or dabbles in the occult. I'd be more interested if they could tell us whether the FBI and CIA will [abuse their power](#) in the coming years now that they have the authority to wiretap and arrest just about anybody as a suspected terrorist and then wiretap your conversations with your lawyer. I wonder if the FBI will use remote viewers to go through our e-mail?

[What is 'terrorism', anyway?](#) The so-called "Patriot Act" signed by President Bush last week doesn't even define 'terrorism.' It refers everybody to section 140(d)(2) of the Foreign Relations Authorization Act, Fiscal Years 1988 and 1989. I have yet to hear the President or any of his minions [define terrorism](#). Was there even any [discussion](#) of the definition issue before unanimously approving it? There was debate about whether to include such things as computer hacking in the definition, but was there any discussion of the definition itself? We all know terrorism is bad and we're all against it, but will we know it when we are arrested for it? How broad is the definition? Is it as broad as the definition proposed for South Africa where there is fear that under the new anti-terrorism law "young pranksters or ordinary trade union members could be convicted of terrorism and jailed for life."* If it's defined broadly enough, participating in a public demonstration against government policies where someone throws a rock may be prosecuted under the terrorism bill. Maybe terrorism

includes criticizing the government as it takes more liberties from the people and moves forward with policies identical to disastrous past policies. For all we know, the government may consider it a terrorist act for the television mass media to do their news without the American flag waving in the foreground. Not that the television mass media would complain, since they seem to have assumed the role of government agents since 9-11. They see their role as one of support for the government in the war effort. They've finally completely lost touch with the ancient role of watchdog and protector of the people from government abuse. For all intents and purposes, the television media are part of the government itself. The print media still provides a voice for critics, but how long before they are shut down in the name of national security?

Maybe its time for Larry King to convene another panel of psychics to predict the future of freedom in America. While they're at it they could locate Osama bin Laden. The FBI and CIA could help pick the panel.

update: [January 15, 2002](#). Prudence Calabrese now says she and her team of Rviewers see that the next terrorist attack will be in a subway and the words SNOW BANK are prominent.

October 29, 2001. Yesterday's *Sacramento Bee* had an interesting article by Samuel H. Pillsbury, a professor of law at Loyola Law School, Los Angeles, and the author of [Judging Evil: Rethinking the Law of Murder and Manslaughter](#). The point of the article is pretty simple: "Evil is something humans do, not something they are." Dividing the world up into the good and the evil "dulls our understanding of the world" and has a very wicked consequence.

Consider what happens when we declare someone evil. We judge that person to be without value. The individual has no rights we must respect; there are no restrictions on what we can do to him or what we can feel about him.

Pillsbury believes that the "division of humankind into the worthy and the unworthy is the evil that drove the terror of Sept. 11, and perhaps the anthrax attacks as well. And such evil is contagious." His conclusion is that we should condemn acts not persons.

There is much to quibble with in Pillsbury's claims, but I think he is right about black-and-white thinking. This demonizing of the enemy and sanctifying of America is likely to result in "another eye for another eye till everyone is blind ([Tommy Sands](#))."

Elie Wiesel also had an article in yesterday's paper--in *Parade*--and demonstrated just how attractive this black-and-white thinking can be. "The terrorists have chosen shame," writes Wiesel. "We choose honor." We want to believe that we are good and honorable and the enemy is evil and shameful. Unfortunately, so does the enemy.

Terrorists do not discriminate between civilians and soldiers. They kill indiscriminately and some even willingly die while killing people in a restaurant, marketplace, or public building. But they are human beings and need to justify their atrocities. Those they murder have been dehumanized as evil beings who have no

right to be treated with any dignity. The terrorists who wish to kill every American have made the mistake of assuming we are all evil. They believe they are good and that good always prevails, so they believe they will prevail no matter what the odds. The odds are greatly against them. It is not likely they will prevail and turn the world into a fanatical fundamentalist medieval Islamic community, if that is their goal. But when they fail it will not be because they are evil and we are good.

While there are some Americans who will demonize all Muslims, Arabs, or dark-skinned people because of the evil acts of some dark-skinned Muslim Arabs on September 11th, most of us will follow President Bush's example and not use these events as an excuse to express racist hatred. But it does America no good to demonize Osama bin Laden and his millions of admirers the way we demonized Sadaam Hussein. Only if we distinguish the act from the person can we even ask the question, why is this man so admired by so many people? Why are millions willing to kill Americans or die trying because he tells them it is God's will? As long as we think of bin Laden and his followers as pure evil, we will make no effort to understand them. We will be driven by the same kind of blind hatred that drives our enemies; our goal will be to kill them all or die trying.

Bin Laden's followers admire him because they think he is good and his cause just. What is his cause? He says it is to rid sacred Muslim land of infidels and to punish those who cause suffering to Muslims. This religious intolerance is not unique to bin Laden, but is common in many Islamic countries. In fact, it is [common throughout the world](#), even in atheist countries. If Americans did not catch bin Laden's wrath, he would be persecuting somebody else, most likely the Jews. The extremist [Palestinian desire to exterminate all Jews in Israel](#) is one bin Laden's kind knows well. These Palestinian extremists have been terrorizing civilians for decades and have incorporated [suicide bombing](#) into their religion. In part, these ethnic/religious wars of annihilation are due to too many people and too little land. But much of the hatred has to do with the notion of "sacred" sites. There is a lesson here for America's Taliban. Our survival as a nation does not depend on us all saying [prayers](#) together to start the school or work day, or before sporting contests. We will not be made stronger or more moral by posting the Ten Commandments in all public buildings. We will not become invincible by forcing God on everyone at every opportunity. We will not become good or better by hiding intolerance behind the mask of prayerful, patriotic unity. The real enemy is within and it is not godlessness. We should not be wasting our time debating whether the pledge of allegiance should be required or not, or whether public schools should proclaim on their message boards "God Bless America." Our Supreme Court should not be wasting its time deciding the constitutionality of laws that require students to start each day with a "moment of silence" which everyone knows is supposed to be a religious exercise and which everyone knows can be done by anyone at any time in any place and so does not require a law to force it on anyone. (FYI: The U.S. Supreme Court has refused to hear the ACLU's appeal of a [federal court's upholding](#) of the Virginia statute which requires the moment of silence.)

The way to maintain our freedom and prosperity is through diversity and toleration. These are not the traditional values of Christianity, but they are the traditional values of America. The more we strive to impose uniformity of thought and trample upon diversity and freedom, the more we become like our enemy. It does not matter that

our intentions are good, that we believe we are doing God's will, that we *know* the Bible has all the answers to all the questions. That is what our enemy believes, though their book is the *Koran*. Most people who believe in the divinity of the Bible or the Koran are peaceful, loving people, who do not try to impose their understanding of religion on the rest of the world. But the minority who are intolerant of opposition and who think they have been given a divine mission to impose the will of God (as they understand it) on the rest of us are dangerous to peace and stability, to freedom and joy. We have seen what has happened in the world of Islam when moderates have not opposed fundamentalist fanatics. The same thing could happen here should the Jerry Falwells and Pat Robertsons take over.

The terrorists sending anthrax and anthrax hoaxes through the mails may think of themselves as good people attacking evil people. Whether they are trying to kill civilians or government agents, or frighten those who provide abortion information and services to women, these terrorists are not that different from each other. They think they are serving God by their terror. Where are the voices of the clergy or the moderate theists regarding anti-abortion terrorism, some of which has included terrorist bombings that have killed or injured innocent civilians? Does their silence mean they approve? What will happen to America if the religious moderates do not speak up against the religious fanatics and terrorists? Why doesn't law enforcement pursue these terrorists with the same vigor they are pursuing the September 11th criminals?

It would be foolish to try to predict how this will all play out. We are not going to wake up one day to headlines that read: *Osama says he was wrong - jihad halted*. Nor will we see: *America surrenders! Bush asks forgiveness of Allah*. The headline somewhere may read **Good Triumphs Over Evil!** but it shouldn't. Not when we have leaders of Islamic communities elsewhere and various Christian communities here in America declaring that those who do not share their moral values are evil.

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Mass Media Funk

14

August 27, 2000. [The South rebels again](#). Throughout the South yesterday high school football games centered on "voluntary" and "spontaneous" Christian prayer ("The Lord's Prayer" a.k.a. "The Our Father") in defiance of the law. The teachers and administrators who are leading and teaching the young are turning the other cheek on this one, claiming it's a free speech and freedom of religion issue. That's how the issue has been framed by the disc jockey ([Paul Ott](#)) who seems to be the leader of this movement to defy the U.S. Supreme Court ruling that organized prayer before public high school football games is an attempt to bring a particular religion into the public schools. The leaders and followers in this football prayer movement seem to really believe that the issue is freedom of speech (theirs) and freedom of religion (theirs). I can understand why the students don't grasp the significance of keeping private religious groups from co-opting public school programs. They're young, inexperienced, and ignorant of our history and its institutions. But the adults should be teaching their children about the "tyranny of the majority" and the function of the Constitution to protect individuals from bullies who would trample their rights in an instant while waving the flag in one hand and the Bill of Rights in the other.

In this country, the Constitution protects us against such things as requiring us to belong to a particular religion *even if the majority of citizens wanted us to*. The majority can't have its way in matters of religion unless an amendment to the Constitution is passed that would impose the majority's will on all citizens. The majority might want us to say a Christian prayer at public school functions, in our public courtrooms, at NFL games, etc., but the Constitution protects us against such an imposition. The teachers and administrators who are encouraging their students to defy the law or find phony loopholes in the law (*planned spontaneity!*) ought to be teaching their children that our democracy does not allow majorities to tyrannize minorities in matters of religion.

There is a good reason for not allowing organized religious services during public school functions. There is a good reason for not letting majorities tyrannize minorities. No one would ever think it reasonable to play football in a synagogue, mosque or church. And anyone can pray at any time anywhere in the world. The right to pray does not include the right to pray wherever you want in any fashion you want. Today, the ruse is prayer at high school football games. Tomorrow will they be demanding the right to pray with loudspeakers at the shopping mall? Even if it's voluntary and spontaneous?

The leaders should be teaching their children that by joining with their fellow Christians in a public display of prayer at a public high school football game they are creating an atmosphere of hostility and fear among non-Christians, and even among some Christians who don't say Protestant prayers. And, if they had any sense at all, the leaders would be teaching their children that the Eternal Almighty Creator of the

Infinite Universe doesn't give a fiddler's fart about high school football in America or any other country in the universe. They ought to be taught that to ask God to intervene in their football game is the height of moronic behavior and bound to irritate the Lord to no end. They should be teaching their children that this is not a free speech issue, for they can pray in their churches if they like organized prayer or silently if that suits them. No one is hindering their right to pray, for the right to pray does not include the right to pray wherever you want in whatever way you want. The adults should be teaching the children that this *is* a freedom of religion issue. Every student in a public school should be able to go to school and participate in school activities without having anyone impose their religious practices on him or her involuntarily. Religious freedom means the right to be protected from religious people or groups imposing their beliefs and practices on others in public institutions.

To behave the way these children and their leaders are behaving is disgraceful. It's unpatriotic, un-American and an offense to any self-respecting Infinite Being. These "leaders" are teaching their children to defy the law when it suits them. They're breeding a new generation of religious fanatics who think they are above the law when it comes to matters of conscience. Worse, they are being taught to masquerade their attempt to impose their religious practices on others as a matter of conscience. The whole issue is phony. Nobody is persecuting these people; nobody is forcing them to do anything immoral. No religion requires its adherents to engage in organized prayer at public school games. Even if it did, we'd rightly restrict such a cult for the benefit of true freedom of religion, which, if it means anything else, means the freedom from being subjected to other people's forms of worship in public places. I know, [Joe Lieberman disagrees](#).

further reading

- [Group reports prayer protests as school year begins](#) from CNN.com
- [Prayer protest at Texas high school drowned out by loudspeakers](#) By C. BRYSON HULL, Associated Press
- [No Pray No Play](#) - The Yahoos Take Over

reader comments

30 Aug 2000

Being an agnostic for a number of years, I do not think a high school football game prayer objectionable. Though it seems to breach the separation of church and state, does it really? No one is forcing the members of the audience to say the prayer. They need not sit down and listen, even. They can get up and stretch, or say their own prayers, or mumble to themselves, or go to the bathroom. More to the point, however, when we nonbelievers start objecting to basically innocuous expressions of religiosity, we seem insecure, defensive, and uncertain to believers. It makes us look afraid. Our pursuit of the truth will, in the end, speak for itself.

PS: If a president wanted us all to say the "Our Father," then I'd have a problem, I assure you.

J. Negrete

reply: I have no problem with the president *wanting* us to say the "Our Father" or any other prayer. I wouldn't even have a problem if the president, while speaking at a public school graduation, asked everybody to join him in the Lord's Prayer, unless he had been told not to use the podium as a pulpit. If you tell him he can't use the podium as a pulpit, he can refuse to speak to your school if he cannot accept that restriction. But if you invite him to speak to the school and you put no restrictions on what he can say, then, if he asks people to pray, it's his prerogative. The people can walk out or stand mute or otherwise refuse to participate. They could even boo if they felt strongly enough about it. They can join him in prayer if they feel like it.

Letting a student lead a prayer over the public address system at a public school function is in a different category. The issue isn't whether those present are forced to pray or not, since of course they are not forced to participate. But those who belong to minority religions or who are agnostics or atheists are made to feel inferior and alienated by the fact that their teachers and most of the other students are joining together in solidarity. It may be true, as you say, that *"They need not sit down and listen.... They can get up and stretch, or say their own prayers, or mumble to themselves, or go to the bathroom."* But what they can't do is avoid being identified as non-participants. Furthermore, even though the minorities might respect the right of the majority to worship in whatever way they see fit, by virtue of not participating the minorities appear to be rejecting the religious practice of the majority. The minority is forced into being in *opposition* to the majority. If you don't think being labeled an outsider is a big deal, you've probably never been an outsider.

Witness what happened to 16-year-old Jordan Kupersmith of Potomac Falls High School in Loudoun County, Virginia, [when he walk out of class to protest the state's new minute-of-silence law.](#) He was summoned to the principal's office and given detention and told he would face further disciplinary action if he continues to leave class during the daily minute of silence.

To characterize this kind of bullying as "innocuous" is wrong. It's pernicious. I have no understanding of your belief that objecting to these pray-in-your face bullies makes us *"seem insecure, defensive, and uncertain to believers. It makes us look afraid. Our pursuit of the truth will, in the end, speak for itself."* The truth never speaks for itself. Somebody has to hammer it home and keep reminding us of the obvious. The Republic cannot tolerate self-righteous bullies who think they only have to obey the laws they agree with, who can isolate people and create an aura of intolerance against those

who don't join them, and who can make even their leaders afraid to admonish them for their indecency. If I seem to be afraid to you that may be because I *am* afraid. I am afraid that the Yahoos are taking over the asylum.

[thanks to Jon Henrik Gilhuus and Joe Littrell]

August 20, 2000. In today's [New York Times](#), Natalie Angier reviews what has been learned from [the genome project](#) about the [Race/IQ issue](#). She concludes that "the more closely that researchers examine the human genome -- the complement of genetic material encased in the heart of almost every cell of the body -- the more most of them are convinced that the standard labels used to distinguish people by "race" have little or no biological meaning."

"Race is a social concept, not a scientific one," said Dr. J. Craig Venter, head of the Celera Genomics Corporation in Rockville, Md. "We all evolved in the last 100,000 years from the same small number of tribes that migrated out of Africa and colonized the world."

"If you ask what percentage of your genes is reflected in your external appearance, the basis by which we talk about race, the answer seems to be in the range of .01 percent," said Dr. Harold P. Freeman, the chief executive, president and director of surgery at North General Hospital in Manhattan, who has studied the issue of biology and race. "This is a very, very minimal reflection of your genetic makeup."

According to Angier, a very small number of genes determine skin color, nose and eye shape, and the other visible features used to identify the races. On the other hand "traits like intelligence, artistic talent and social skills are likely to be shaped by thousands, if not tens of thousands, of the 80,000 or so genes in the human genome, all working in complex combinatorial fashion."

Dr. Aravinda Chakravarti, a geneticist at Case Western University in Cleveland, claims that "race" is "a bogus idea" because "the differences that we see in skin color do not translate into widespread biological differences that are unique to groups."

Dr. Jurgen K. Naggert, a geneticist at the Jackson Laboratory in Bar Harbor, Me., said: "These big groups that we characterize as races are too heterogeneous to lump together in a scientific way."

Of course, not all scientists agree. Dr. Alan Rogers, a population geneticist and professor of anthropology at the University of Utah in Salt Lake City, for example, thinks that racial classifications are useful. "We may believe that most differences between races are superficial, but the differences are there, and they are informative about the origins and migrations of our species. To do my work, I have to get genetic data from different parts of the world, and look at differences within groups and between groups, so it helps to have labels for groups."

[Dr. J. Philippe Rushton](#) is not likely to be persuaded by the latest research to change his mind about race and IQ. He has maintained for years that east Asians have the largest average brain size and intelligence scores, African descendents have the smallest average brains and I.Q.'s, and Europeans are in the middle. He also believes he has evidence of a link between race, IQ and propensity towards criminal behavior.

Angier notes that many scientists have objected to Rushton's methods and interpretations. The "link between total brain size and intelligence is far from clear. Women, for example, have smaller brains than men do, even when adjusted for their comparatively smaller body mass, yet average male and female I.Q. scores are the same."

The current scientific theory about human migrations and evolution must stick in the craw of anyone who wants to convince himself that his race is the master race or superior to any other. Homo sapiens originated in Africa some 100,000 to 200,000 years ago. Thus, we all are descendents of Africans; even neo-Nazi's and white supremacists have Africa running through their veins. The migrations out of Africa began about 7,000 generations ago and seems to have involved a relatively small number of people.

"As a result of that combination -- a limited founder population and a short time since dispersal -- humans are strikingly homogeneous, differing from one another only once in a thousand subunits of the genome," says Angier.

further reading

- [The Human Genome Project](#)
- [Does Race Exist?](#)

August 14, 2000. In Mexico, [seven people are dead](#) because of a botched exorcism and police are looking for a priest who burnt someone with candle wax in another botched exorcism. So says [Yahoo.News](#).

August 9, 2000. More bad news for religious people: they live longer and will not get to see their Creator or Great Spirit as soon as they would if they were atheists. The title of an article by Denise Mann of [WebMD](#) Medical News tells it all: "Religious People Live Longer Than Nonbelievers" - Healthy Beliefs, Support Network May Be Part of the Reason Why." According to the article, more than 90% of American adults are affiliated with some type of formal religion, and nearly 96% believe in God or a "Universal Spirit". Unfortunately, that means that to get, say, 1000 atheists in a random sample you'd have to have a sample of about 25,000. Since most studies have considerably smaller samples, it would be difficult to do a meaningful study comparing the longevity of believers with non-believers that had an adequate number of non-believers in it. No problem. Do a meta-study, a study of studies, which is exactly what Michael E. McCullough of the National Institute for Healthcare Research et al. did. According to the abstract of their article published in [Health Psychology](#) (May 2000 Vol. 19, No. 3, 211-222) they did a

meta-analysis of data from 42 independent samples [representing

125,826 participants] examining the association of a measure of religious involvement and all-cause mortality.... Religious involvement was significantly associated with lower mortality (odds ratio = 1.29; 95% confidence interval: 1.20—1.39), indicating that people high in religious involvement were more likely to be alive at follow-up than people lower in religious involvement. Although the strength of the religious involvement/mortality association varied as a function of several moderator variables, the association of religious involvement and mortality was robust and on the order of magnitude that has come to be expected for psychosocial factors. Conclusions did not appear to be due to publication bias.

The article is not for non-statisticians. *Publication bias* refers to the fact that published studies tend to be biased towards positive results. Four separate checks were done to measure for publication bias; all tended to indicate that this was not a problem.

I have a couple of comments. The WebMD article claims that the study shows that

people who were most involved in their religions were 29% more likely to be alive when the various studies were completed than were their nonreligious counterparts.

This makes it sound like religious people live 29% longer than nonreligious people. However, the *Health Psychology* article says something quite different. It says

highly religious individuals had odds of survival approximately 29% higher than those of less religious individuals.

Thus, according to the researchers, the contrast is not between religious and non-religious people, but between highly religious people and less religious people (including, presumably, non-religious people). Thus, even many religious people have greater mortality rates than other, more, religious people. However, I could not find any definition of "highly religious" in the article. The authors do mention "religious involvement" as being measured by such things as "religious attendance, membership in religious kibbutzim, finding strength and comfort from one's religious beliefs, and religious orthodoxy." They also state that

measures of public religious involvement (i.e., religious attendance) may be more strongly related to health outcomes than are measures of private religiousness (e.g., self-rated religiousness, frequency of private prayer, or use of religion as a coping resource).

This belief is based upon

a century of sociological theory and research [which] suggests that the association of religious involvement and physical health might be more closely tied to the psychosocial resources that religion

provides rather than any positive psychological states engendered specifically by more private forms of religious expression.

In short, the authors conclude that it is not just because religiously involved people tend to smoke and drink less than non-religious people (we are also ["slightly less obese"](#)--I love that expression!). According to McCullough, religious people "receive a lot of positive social support that helps them to cope with stress." Also, "religion helps people to develop a coherent set of beliefs about the world that help them to make sense of their stress and suffering." This may be true and it does seem intuitively correct to think that communal baptisms, bar mitzvahs, circumcisions, weddings and funerals would be good for the health of people going through some of life's major causes of stress. But this was not something his group studied scientifically. "All of these factors are probably at least partially responsible for the links between religious involvement and health," he says. He may be right. Thus, if you want to put off meeting your Maker as long as possible, get more religiously involved.

reader comments

11 Aug 2000

Your skepticism on this particular issue is misbegotten - and I say this as one nonbeliever to another. Let me give you an example: My blood pressure rises every time I hear some evangelist politico sponsor legislation recognizing creationism as a scientific theory (or characterizing evolution as "just" a theory). So of course nonbelievers are dying young - the believers are killing us.

Mike Drake

reply: It will get worse before it gets better. Religion used to be the bailiwick of the Republicans. [Gore and Lieberman](#) are already praying together publicly and invoking God to bless their party, as if an omnipotent, omniscient being would be more interested in politics than high school football games. Anyway, this is just one more way the media and the candidates can avoid dealing with issues that matter and can entertain themselves and us with [another diversion](#).

11 Aug 2000

One source of systematic error: people who are really sick can no longer attend services. People who are healthy can still attend services. Sick people are more likely to die, etc. So being sick causes you to stop attending church or anything else. How much of the 29% does this account for?

John Farley

reply: The researchers are aware of the problem, mention it, and say it should be taken into account. They write

Healthy persons might be more likely than unhealthy persons to attend public religious activities. Thus, the association between religious involvement and mortality is likely to be stronger for measures of public as compared with private religiousness, and effect sizes for studies using public measures of religious involvement should be moderated also by statistical control of physical health.

What I found most interesting was their comment on the results of two studies of cancer patients that found that "religious involvement was not associated with mortality."

Because the health benefits of religiousness may be mediated in part by lifestyle choices and coping behaviors that have their effects over a number of years, the association of religious involvement and mortality might be stronger in basically healthy, community-dwelling samples than in samples of clinical patients.

In other words, had the cancer patients been more religious they would have made better lifestyle choices and they wouldn't be dying of cancer; they'd be playing bingo in the church hall or attending somebody else's funeral.

The authors also note that when doing this kind of study one must remember that women tend to be more religiously involved than men and samples might be skewed to include too many women, whom, we already know, live longer than men. The authors also note that a number of factors are relevant to mortality, such as age, gender, race, ethnicity, general social support, psychological well-being, exercise, smoking, and physical health. Studies which don't control for such things may be biased.

However, the only studies they systematically excluded were those that "used religious affiliation or denomination (e.g., Christian, Jewish) as the sole measure of religion."

August 9, 2000. A motivational [firewalking](#) at the American Association for Nude Recreation's 69th annual convention in San Diego backfired and seven naked disciples with scorched feet had to be hospitalized last Saturday night. Noted firewalker and peak performance coach [Tolly Burkan](#) said such mishaps are exceptions to the rule. He's only had a few dozen of his followers burn their feet, he says. No mishaps were reported by the nudists in other activities, however, including bocci ball, ping pong, skydiving, salsa-making, and line dancing.

August 4, 2000. Michael Shermer has joined forces with Holocaust scholar Alex Grobman for a new book on the Holocaust deniers. The book is reviewed by Charles Austin in [The Record Online](#). The title is [Denying History : Who Says the Holocaust](#)

[Never Happened and Why Do They Say It?](#) One review says that the "book refutes, in detail, the Holocaust deniers' claims, and it demonstrates conclusively that the Holocaust did happen. It also explores the fundamental historical issue in all debates over the truth of the Holocaust: the question of 'how we know that any past event happened.'"

[thanks to Jon Henrik Gilhuus]

July 26, 2000. [ABCNews.com](#) reports on a National Science Foundation survey which found that

Only 21 percent of those surveyed were able to explain what it means to study something scientifically, just over half understood probability, and only a third knew how an experiment is conducted.

The survey is a reminder of two factors which should never be overlooked in trying to explain why people believe weird things: ignorance and incompetence. Those who think the Internet has greatly reduced ignorance should note that only 16% of those surveyed could even define the Internet. That's an increase of 5% over the past 5 years. At that rate, we'll all know what the Internet is by the year 2084.

On the other hand, the survey is part of a larger project, and [this part only concerns public self-assessment](#), not actual knowledge or lack of it.

[thanks to Jon Henrik Gilhuus]

July 19, 2000. "Are 'functional foods' dangerous? Opponents renew call for stricter FDA regulations," is a [CNN.com](#) story about cashing in on the growing fascination with "alternative" medicine and "natural" drugs. Manufacturers of ice cream, cereal, [teas, soft drinks](#), etc. are adding herbs along with unsubstantiated claims about improving memory and enhancing immune systems. The so-called *nutraceuticals* are popular with consumers, despite the lack of evidence in support of the claims being made.

"According to the General Accounting Office, the investigative division of the U.S. Congress, American consumers spent about \$31 billion last year on dietary supplements and herbal food products."

[thanks to Jon Henrik Gilhuus]

July 14, 2000. Nelson Mandela "brought the XIII International AIDS Conference to an emotional close on Friday with a call to battle against what he called the 'terrible scourge' of AIDS," according to [YahooNews](#). He called the controversy surrounding the current President of South Africa, Thabo Mbeki's indirect support for the theory that HIV might not be the cause of AIDS a "distraction."

July 12, 2000. Last June, [Joe Firmage](#) announced that he was joining forces with Ann Druyan and the Carl Sagan Foundation (CSF) in a \$23 million venture called [Project Voyager](#). According to the Project Voyager website, they will create

a new type of visionary alliance of partners in finance, science,

learning, media, and entertainment to create an "integrated experience network." Our canvas is an Internet portal, a studio, and a press. With them, we aspire to demonstrate convergence of remarkable and responsible learning and entertainment.

Our success will be measured in three ways: commercially in return to our employees and shareholders, ideologically in our commitment to the intellectual and spiritual nourishment of humanity, and in the remarkable things the founders will do with their personal equity.

Joel Achenbach of the *Washington Post* expresses his concerns with the merger in ["Sagan and Firmage: Not So Perfect Together."](#) For her part, Druyan dismisses criticism of joining forces with a man who claims to have many weird beliefs based on some weird experiences. She and Carl worked with some *conventional religious* people, she says, and their beliefs were no weirder than Firmage's notions. Of course, unlike her religious friends, [Firmage gave Druyan a million dollars](#) last year for her not-for profit CSF.

According to Achenbach, [SETI](#) turned Firmage down when he offered to throw money their way and form an alliance. Frank Drake, head of the SETI Institute, thinks that to hook up with Firmage, "no matter what disclaimers you put on your site," would lead people to take it as an endorsement of his views. SETI did find other generous supporters, however. It's accepted \$12.5 million from Microsoft co-founder Paul Allen and former Microsoft Chief Technology Officer Nathan P. Myhrvold.

Firmage and Druyan will have competition, however. [Deepak Chopra](#) is starting a company later this year, to be run by his daughter, which will develop "Web, television and radio programming, services and products." [He's recently signed on Kathryn M. Downing](#), former publisher of the Los Angeles Times, as chief executive of Mypotential.com.

further reading

[Joe Firmage sheds E.T. aura for science site](#) By John Borland Staff
Writer, CNET News.com
[thanks to Stephen W. Fairfield and Joe Littrell]





SkepDic.com

In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

13

July 11, 2000. According to the *Sacramento Bee*, scientists believe that 25 million people have AIDS and that 15 million have already died of the disease in sub-Saharan Africa. Yesterday, in Durban, South Africa, [hundreds of delegates at the 13th International AIDS Conference walked out](#) when South African President Thabo Mbeki said

The world's biggest killer and the greatest cause of ill health and suffering across the globe, including south Africa, is extreme poverty. As I listened and heard the whole story about our own country, it seemed to me that we could not blame everything on a single virus.

A Genevan delegate, Dr. Alexdra Calmy, said that Mbeki "blames AIDS on capitalism and imperialism."

Dr. Jennifer Ann Geel, who works with AIDS patients in South Africa, said that Mbeki's comments have made patients skeptical of such things as wearing condoms.

further reading

- [The Mystery of AIDS in South Africa](#) by Helen Epstein *New York Review of Books*
- [THE RELATIONSHIP BETWEEN THE HUMAN IMMUNODEFICIENCY VIRUS AND THE ACQUIRED IMMUNODEFICIENCY SYNDROME](#) from the National Institutes of Health
- [Mass Media Funk 11](#)

[thanks to Alison Garcia]

update (July 9, 2002). Dr. James McIntyre, director of the Perinatal HIV Research Unit at the University of Witwatersrand in Soweto, estimates there are 250,000 HIV-infected women who give birth annually in South Africa. Yet, the minister of health for South Africa called drugs used to prevent transmission of HIV from mother to child *poison*. ([Newsday](#))

July 6, 2000. Neuroscientist [Peter Brugger](#) of University Hospital in Zurich claims that paranormal experiences, including out-of-body experiences, seeing ghosts or seeing one's double (doppelganger), can be due to brain damage or to intense emotion.

Phantoms could be the result of damaged parietal lobes, which help the brain distinguish between the body and the space surrounding it, but they can also occur in people with 'normal brains' due to powerful emotions such as intense fear, sadness, or euphoria, according to Brugger.

(Apparently, it is not uncommon for extreme mountain climbers to feel invisible presences and even to have OBEs, probably because of oxygen deprivation.)

According to ABCNews.com, Brugger plans to test his theory using a "virtual reality box," which has been used to treat people experiencing [phantom limbs](#).

[thanks to Jon Henrik Gilhuus and Joe Littrell]

July 5, 2000. The *Journal of the American Medical Association* has dueling articles today regarding an issue reported on here [last November](#): death by medical error.

One argues [the numbers are greatly exaggerated](#), the other argues [they are not](#). An analysis of the disagreement is given by Rick Weiss of the *Washington Post*.

[thanks to Jon Henrik Gilhuus]

July 1, 2000. We noted [last February](#) that the Indiana House voted 92-7 in support of a law that would allow posting the [Ten Commandments](#) in schools, courthouses and on other government property, as long as they are displayed with "other documents of historical significance that have formed and influenced the U.S. legal system." Today, the Orange County courthouse became the first in the state to use the new law. Officials posted the Ten Commandments in a glass case between a copy of the Declaration of Independence and the Bill of Rights.

Renditions of "God Bless America" and scripture readings echoed from the steps of the county courthouse Saturday as nearly 300 people who began gathering just before midnight watched officials unveil a plaque with the religious tenets the moment the new law went into effect.

"You talk about being moved. Those people were really full of spirit - they were just so excited that it was happening," County Commissioner Charles W. Hall said. ([Nando Times](#))

The government officials and citizen supporters of this type of religious bullying are hypocrites, every one of them. They claim that they are not being allowed to pray, that religion is being squashed by the state, but in fact [they don't want religion to be free or openly practiced](#), because that would mean that [Jews, Catholics, Hindus, Buddhists, Sikhs, Scientologists, etc., would be equal with them](#) (i.e., the militant fundamentalist Christians). These people are also illogical because they have posted and gone wild over contradictory documents. The First Commandment says "I am the Lord thy God, which have brought thee out of the land of Egypt, out of the house of bondage. Thou shalt have no other gods before me." But the First Amendment says "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof..." The Fourteenth Amendment forbids the States from doing what the First Amendment forbids Congress from doing. Americans are free to believe in the God of the ancient Jews, but we are also free to

violate the First Commandment and have other gods we worship instead of the God of the Jews, Christians and Muslims. In short, the First Amendment says that no American has to accept the First Commandment, while the First Commandment implies that the First Amendment is contrary to one God's will.

I could go on ranting about the other commandments and their conflict with the Bill of Rights, but what good would it do? The Supreme Court will eventually toss this Indiana ruse onto the trash heap of hypocritical documents along with the [Texas prayer law](#).

July 1, 2000. Li Hongzhi, leader of the [Falun Gong](#) cult, now claims that the persecution of his followers in China is the fulfillment of a prophecy of [Nostradamus](#), according to John Leicester of the Associated Press (*Sacramento Bee*). The same lines that other believers in Nostradamus's prophetic powers have cited as predicting the plane crash of John F. Kennedy Jr. are cited by Li as applying to his group. Maybe Nossie gave the world a twofer here. The words are

L'an mil neuf cens nonante neuf sept mois Du ciel viendra grand Roy
deffraieur Resusciter le grand Roy d'Angolmois. Avant apres Mars
regner par bon heur.

The year 1999 seven months From the sky will come the great King of
Terror. To resuscitate the great king of the Mongols. Before and after
Mars reigns by good luck. (X-72)*

[Read all about it.](#)

June 29, 2000. Sister Lucia dos Santos, who claimed the Virgin Mary appeared to her and two other kids at Fatima, Portugal, in 1917 was a person who lived in a "delirious world of infantile fantasies" and suffered "religious hallucinations". That is how a friar, Mario de Oliveira, describes her. The Vatican's top theologian, Cardinal Joseph Ratzinger, said that Lucia, now a 93-year-old cloistered Carmelite nun, [might have conjured her vision from devotional books](#). Skeptics are not so charitable. According to the [Sunday-Times \(UK\)](#), a lot of people are angry in Portugal and beyond because the recently revealed third secret of Fatima was not a doomsday prophecy, making their recent penitence and contributions unnecessary at this time. Lucia didn't write down the prophecy until 1944, and she's had a cult following ever since who have beaten their way to Fatima to pray, do penance and leave money, some hoping for a miracle, others hoping for forgiveness before the world ends. To skeptics, Lucia is just another liar for Jesus, a [pious fraud](#). Whether she was deranged or just liked the attention, who can say?

Some say she predicted the end of the world would happen before [1960](#). Some also say that the 3rd prophecy is a [forgery](#).

[thanks to Joe Littrell and Jon Henrik Gilhuus]

June 29, 2000. [The First Amendment Center](#) released the results of their latest poll of our opinions. As a nation we have had over 200 years to inculcate the values of the

Constitution in our people. Where did we go wrong? Here is an excerpt from their press release:

From 1997 to 2000, the percentage of people who agreed teachers and public school officials should lead prayers increased from 56% to 65%. In addition, a majority of respondents, 56%, said a public school teacher should be allowed to use the Bible as factual text in a history or social studies class.

More than half (51%) of the respondents said the press in America has too much freedom to do what it wants, compared to 53% in 1999.

The full report is available in [PDF format](#). The full report states that 40% (not 51%) said the press has too much freedom. Are we becoming a nation of polite hypocrites? Majorities oppose allowing speech which is racially offensive (77%) or religiously offensive (53%), and 51% would ban public displays of potentially offensive art.

Only 48% of those surveyed strongly disagreed with the statement "The First Amendment goes too far in the rights it guarantees." 65% think that giving money to a political candidate is an act of free speech that should be protected by the Constitution. Only 18% disagreed when asked whether a prayer should be said at high school graduation if the majority favors it. Only 35% disagreed that students at public schools should be allowed to lead prayers over a public address system at such events as a football game.

"The survey was based on telephone interviews conducted by The Center for Survey Research and Analysis at the University of Connecticut with 1,015 adults, ages 18 or older, conducted April 13-26, 2000. The margin of sampling error is plus or minus 3 percentage points."

I generally find opinion polls to be useless. Uninformed people are asked for their opinions, which are then reported to us. Thus, the uninformed are informed by the uninformed. I'd rather see the media provide information about a subject that might help us become informed in our opinions. However, I found this poll to be of value precisely because it gives us some sort of gauge as to what people really think about freedom, majority rule, and the Constitution. What I get out of this survey is that there are an awful lot of Americans who think the majority should be able to bully minorities in matters of religion and other values. They do not grasp the fact that the First Amendment (and the Fourteenth Amendment) are there to protect our rights from being abused by Congress, the States, and our fellow citizens. They do not seem to understand that even if everybody but one person agreed that it should be illegal to say "Pluff" or read *Little Boy Blue*, that one person is protected by the U.S. Constitution against the tyranny of any majority in such matters.
[thanks to Jon Henrik Gilhuus]

June 28, 2000. Head warden Keith Harris of the Longleat Safari Park in Wiltshire (England) had a wounded rhino. The cow's shoulder and foot had been injured by a bull trying to mount her. Traditional medicine did not help the limping rhino, so he decided to try an alternative approach. "I had heard about copper neck chains being

used to treat horses with arthritis and thought that if that works for them, there's no reason why it shouldn't also be able to help rhinos." Good thinking, Keith, *if* it really works for horses. The rhino now sports custom-made copper bracelets. "Thelma's keeper says the treatment appears to be working, as she is now walking more easily," according to [BBC News](#).

Of course, one can find many [testimonials](#) based upon personal observations like the zookeeper's that copper bracelets are effective in reducing the pain of arthritis or rheumatism. Some defenders of copper jewelry theorize that the [magnetic property of copper](#) is making "energy" and blood flow more freely to the affected areas. Others speculate that [copper permeates the skin](#) and enters the bloodstream where it is needed to combat arthritis, osteoporosis and other diseases. Some don't care about theories; they just know [it works for them](#). Neither the magnetic nor the permeation theory is supported by scientific evidence, according to [WebMD](#). (Dr. Helmar Dollwet's 1981 book, *The Copper Bracelet and Arthritis* did not take the medical world by storm though it still intrigues the "alternative" community.) The felt effectiveness of such devices may be due to [self-deception](#) and [selective thinking](#), the [regressive fallacy](#) or the [placebo effect](#).

[thanks to Joe Littrell]

June 26, 2000. Tonight [ABC's](#) Peter Jennings will narrate a program on the life of Jesus "the man." The program has upset Tom Shales of the [Washington Post](#) because Peter Jennings gets top billing over the Messiah...yes, Shales calls Jesus "the Messiah" in a secular newspaper. Actually, Shales is upset about a lot of things, but mainly he doesn't seem to like the idea of treating his Messiah as if he were a human being of interest to historians in the same way as, say, well, anybody else. However, besides noting that Jennings says there "is a wide range of opinions" on the resurrection--which, I must admit, is a pretty shallow comment--I don't find Shales' complaints very compelling. Jennings apparently shows some skepticism, not only about the resurrection but about the other alleged miracles of Jesus.

One should expect the program to be superficial. It's television, for Christ's sake. If you want to know something in depth about Jesus as an historical figure rather than as a mythical god-man, read something like [The Quest of the Historical Jesus](#) by Albert Schweitzer.

[thanks to Jon Henrik Gilhuus]

June 26, 2000. Three weeks ago, Joe Littrell sent me an e-mail with a link to an article in the *New York Times*. It was about some religious novel becoming number one on the fiction best-seller list. I brushed it off as another example of not being able to account for bad taste. My mistake. Today's *Sacramento Bee* has an article by Bill Lindelof, which notes that "a conservative Christian potboiler" has been number one on the *New York Times* best-seller fiction list for three weeks. The book is the seventh in a series where "readers will experience the horrors of God's judgment and the hope of salvation as they follow Rayford, Buck, Chloe, and the rest of the Tribulation Force in heart-stopping action."* The book is called *The Indwelling* and it has sold two million copies. The authors are Tim LaHaye, a "retired" evangelist, and writer Jerry B. Jenkins. Altogether, the series has sold 15.1 million copies (*Bee*) or 17 million copies ([NYTimes](#)). According to critics, one of the objectionable

messages that runs through the books is that the only way to salvation is to accept Jesus Christ as your personal savior. Other themes include The Anti-Christ, the Apocalypse, Prophecy, and other topics of interest mainly to conservative Christians.

Skeptics might find this disconcerting, that millions of Christians are finding spiritual succor in novels. However, outside of the fact that many people don't seem to treat fiction differently than non-fiction (witness the success of of the [Celestine Prophecy](#) and all religions), I don't know what the concern should be. If people are turning to novels for religious guidance, it is because they are not getting that guidance elsewhere, like at football games or before school starts. (The [ACLU is challenging Virginia's law](#) requiring public schools to begin each day with a minute of silence, a ruse to get them to pray together.)

Those who want to get Jesus onto the football field or into the classroom ought to consider requiring students to read the number one bestseller on the NYT's fiction list. They might have a better chance of success.

June 26, 2000. President Bill Clinton, never one to pass up an opportunity to lie to the world, announced

Today we are learning the language in which God created life. We are gaining ever more awe for the complexity, the beauty, the wonder of God's most divine and sacred gift.

He was not referring to the success of works of religious fiction, but to the completion of "a rough draft of the human genetic code" by scientists, according to the [NandoTimes](#).

Investors were not as impressed as Mr. Clinton was. Shares of Celera Genomics ([CRA](#)), a private firm involved in the mapping, were down \$16.69 (13.14%) to \$110.31 in trading today at about noon PDT.

Clinton compared the genetic mapping to the mapping of the explorers Lewis and Clark

Not to be outdone by Clinton's strange comparison, Tony Blair, the prime minister of Great Britain said

Let us be in no doubt about what we are witnessing today: A revolution in medical science whose implications far surpass even the discovery of antibiotics, the first great technological triumph of the 21st century.

Maybe they were banking on most of us not knowing what 'map' or 'technological triumph' mean. The complete genetic map will certainly open the door to possible revolutions in medical science, but the technological triumphs are mere hopes at this point. How our scientists and society will use and abuse this new information remains to be seen.

Maybe there should be some sort of science IQ test given to those who want to become leaders of major nations. At least Clinton should know that it was Al Gore who discovered jeans while mapping our Interstate highway system after George W. Bush invented the hypodermic needle.

reader comments

30 Jun 2000

In response to your June 26th article about the political side-show over the rough draft of the human genome: While there were many things to be cynical about, the two items you picked out are in fact not really humbug.

First, while a genome map does not resemble anything Rand-McNally would publish, to a geneticist it serves the same purpose. For a researcher in the biological sciences, trying to find a single gene in the human genome is akin to wandering through untracked wilderness, and the creation of the genome map is no less an aid to our early genome explorations than Lewis and Clark's effort was to early settlers.

Second, Mr. Blair was dead on when he called it a technological triumph. Twenty years ago, a PhD could be had after spending four or five years at the lab bench to sequence 400 - 500 bases worth of DNA. Today, even a modest sequencing laboratory can sequence that in less than half a day. The major sequencing centers can do thousands more than that. The reason is because of the incredible automation technology that has been applied to the problem of sequencing DNA. The Human Genome Project has been referred to as biology's Apollo program, and hyperbole aside, it is an apt analogy. And while the practical benefits are still a few years in advance, it is clear to most researchers that the HGP in and of itself is the technological triumph that Mr. Blair declared.

From a scientist's point of view there was more than a bit of stock puffery going on by Celera. We can celebrate the fact that investors actually looked at the numbers announced (80% coverage, 55% finished) and questioned the announcement. Further, as a scientist, it is more than a bit sad for me to see the political capital being grabbed by people who wouldn't know which end of the microscope to put where. But that is simply politicians being politicians, and it shouldn't detract from the importance of the science.

D. Curtis Jamison, Ph.D.

further reading

- [Genome Gateway](#)
- [ANALYSIS: Are we prisoners of our genes? by PETER N. SPOTTS, The Christian Science Monitor](#)
- ['Book of Life' Promises Great Advances for 21st Century](#)

June 19, 2000. [Time](#) magazine has an article about the pros and cons of [coning](#), i.e., ear candling. Janice Horowitz writes "there's no proof candling works." She also mentions the harm that can be done by the process and notes that it is a *good* thing to have ear wax, despite the urge to get rid of it.

Coning has been in the top ten hits on the [Skeptic's Dictionary](#) for many months.
[thanks to Mary Fairchild]

June 18, 2000. Last year, in the United States more priests died than were ordained, leaving 12% of all parishes without a resident pastor, according to the two-year study presented last week in Milwaukee at the National Conference of Catholic Bishops. [CNN.com](#) notes that as the number of priests dwindles the number of Catholics increases.

[thanks to Jon Henrik Gilhuus]

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[The Skeptic's Refuge](#)



[More Mass Media Funk](#)



paradigm and paradigm shift

A paradigm is a model or exemplar. The paradigm case is the typical or archetypal case. A paradigm shift is the movement from one paradigm to another.

One notion of a paradigm is that used in law, where a paradigm is a model case to be distinguished from penumbral cases. A law might make it a crime to use a gun while committing a crime. A case where a robber uses a loaded .357 magnum would be a paradigm case; a case where a robber uses a squirt gun would be considered penumbral. A court would have to decide whether the law meant to include the use of squirt guns as a crime, but there would be no need for interpretation of the law to decide whether using a loaded .357 magnum was within the legislature's intent. *Paradigm* in this sense has no correlative to *paradigm shift*.

A more common use of *paradigm* as *model* would be something like the paradigm of *policing*, which would include the basic assumptions, values, goals, beliefs, expectations, theories and knowledge that a community has about policing. Many models, like that of policing, have emerged over time in response to various changes in society and are not the result of a grand design or plan. A paradigm shift in policing might occur slowly over many years or it might occur abruptly as the result of a conscious analysis and evaluation of the current paradigm. An individual or a group might list the inadequacies, dangers, etc. of the current paradigm in light of relevant changes in society and present a new model for policing. If the new model is accepted by the community, then a paradigm shift occurs. The new paradigm would replace old assumptions, values, goals, beliefs, expectations, theories, etc. with its own.

Thomas Kuhn

T.S. Kuhn, in his [*Structure of Scientific Revolutions*](#) (1962), used the term 'paradigm' to refer to the conceptual frameworks and/or worldviews of various scientific communities. For Kuhn a *scientific paradigm* includes models like the planetary model of atoms, and theories, concepts, knowledge, assumptions, and values. For Kuhn such a notion as the scientific paradigm was essential to make his argument regarding a particular aspect of the history of science, viz., when one conceptual framework gives way to another during what he called a *scientific revolution*.

Kuhn believed that during periods of "normal science" scientists work within the same paradigm. Scientific communication and work proceeds relatively smoothly until [anomalies](#) occur or a new theory or model is proposed which

requires understanding traditional scientific concepts in new ways, and which rejects old assumptions and replaces them with new ones.

A paradigm of a scientific revolution in Kuhn's sense would be the *Copernican revolution*. The old model of the earth at the center of God's creation was replaced with a model that put Earth as one of several planets orbiting our sun. Eventually, circular orbits, which represented perfection and God's design for the heavens in the old worldview, would be reluctantly replaced by *elliptical* orbits. Galileo would find other "imperfections" in the heavens, such as craters on the moon.

For Kuhn, scientific revolutions occur during those periods where at least two paradigms co-exist, one traditional and at least one new. The paradigms are incommensurable, as are the concepts used to understand and explain basic facts and beliefs. The two groups live in different worlds. The movement from the old to a new paradigm he called a *paradigm shift*.

Whether Kuhn was right or wrong about the history of science--and he has plenty of [critics](#)--his notions of a paradigm and a paradigm shift have had enormous influence *outside* of the history of science. In many ways, how Kuhn is understood and applied is analogous to [how Darwin's conception of natural selection has been misunderstood](#) and applied outside of evolutionary biology. For a paradigm of this type of misapplication, see the *Skeptic's Dictionary* entry on [neuro-linguistic programming](#).

What's Your Paradigm?

[Amazon.com](#) lists more than 500 books with the word 'paradigm' in the title, most of which seem to use *paradigm* in the standard sense of model or exemplar, e.g., *Anti-Semitic Stereotypes : A Paradigm of Otherness in English Popular Culture, 1660-1830*.

One of the more common applications of the terms *paradigm* and *paradigm shift* is to mean "traditional way of thinking" vs. "new way of thinking." Some New Age thinkers seem to think that paradigms can be created by individuals or groups who consciously set out to create them. They seem to mean by 'paradigm' nothing more than "a set of personal beliefs," e.g., [Essays on Creating Sacred Relationships: The Next Step to a New Paradigm](#) by Sondra Ray and [Handbook for the New Paradigm](#) from Benevolent Energies. Many of the New Age Self-Help promoters base their approaches on the notion that one's current paradigm is holding them back and what they need to do is create a new paradigm (set of beliefs, priorities, assumptions, values, goals, etc.) for themselves that will allow them to break through, etc., e.g., [The Paradigm Conspiracy: How Our Systems of Government, Church, School, and Culture Violate Our Human Potential](#) by Denise Breton and Christopher Largent.

Others seem to identify the term *paradigm* with *theory*, e.g., [Lamarck's Signature: How Retrogenes Are Changing Darwin's Natural Selection Paradigm](#), by Edward J. Steele et al.

retroactive clairvoyance

Some, like [Joel Barker](#) in his video "[The Business of Paradigms](#)," use *paradigm* and *paradigm shift* to explain how some people or companies fail and others succeed. The ones who succeed are those who can shift to a new paradigm; the ones who fail are those who remain hidebound and fixated on traditional ideas because they have proved successful in the past or because they can see no use for some new idea. The Swiss failed to patent or market the quartz watch, even though they invented it, because they couldn't shift paradigms. They couldn't shift paradigms because they couldn't see that there would be a market for another kind of watch besides the kind they'd been successfully making and selling for generations. The Japanese made all the money from the quartz watch because they didn't have an old paradigm that locked them into a way of thinking that precluded patenting and marketing quartz watches.

This model might be called [retroactive clairvoyance](#) because it sees *always and only after the fact* who failed to make a paradigm shift and who benefited by having foresight to take advantage of other people's creations. This model is useless for predicting what creations will prove profitable and useful. But it is excellent in hindsight. It infallibly sees that Xerox didn't do a paradigm shift and screwed up when it did not pursue ethernet or graphical user interface or the laser printer, and that IBM screwed up when it initially rejected the notion of the personal computer.

Barker has moved on and now claims to be able to recognize when paradigms will shift in the future and he will teach you to do so, too, in his new book [Paradigms: The Business of Discovering the Future](#).

relativism

Probably the most serious misapplication of Kuhn's conception is the notion that everything that makes up a paradigm is relative and subjective, and therefore purely personal with no connection or test in reality. Some of those who think that [creationism](#) and evolution are competing paradigms or theories make this mistake. It may be true that all theories and beliefs are "subjective" to some extent, but this does not mean that they are all equally useful or probable, or even of the same type. The fact that *red* and all colors are "subjective" hasn't prevented the development of interior decorating, painting, clothing design, etc. Nobody hesitates to buy a red car on the grounds that red and all colors are purely subjective. Most of us can still tell the difference between red and blue even if we know that neither really exists except in our

minds or in the subjective interaction of our senses with objects under certain conditions. And most of us know that there is no comparison and no competition between understanding red in terms of wavelength of light and understanding red as a symbol for love or passion or the belief that all things red are infused with divine love and worthy of veneration.

further reading

[Adams, James L. *Conceptual Blockbusting: A Guide to Better Ideas* 3rd ed. \(Perseus Press, 1990\).](#)

[Hoyningen-Huene, Paul. *Reconstructing Scientific Revolutions : Thomas S. Kuhn's Philosophy of Science* trans. Alexander J. Levine \(University of Chicago, 1993\).](#)

[Kuhn, Thomas S. *The Road Since Structure: Philosophical Essays, 1970-1993, With an Autobiographical Interview.* eds. Jim Conant and John Haugeland, University of Chicago Press, 2000.](#)

[Kuhn, Thomas S. *The Structure of Scientific Revolutions* 3rd ed. \(University of Chicago, 1996\).](#)

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 [papyromancy](#)

[paranormal](#) 

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[!\[\]\(e78f798d4ea5c530c9db49e7d26e6b95_img.jpg\) morphic
resonance](#)

reader comments:

morphic resonance

21 Dec 2000

In your article, you imply that Rupert Sheldrake coined the term "morphic resonance" fairly recently. I would like to point out that the fantasy author [Terry Pratchett](#) has been using that term for many years now, although in a context far more appropriate - fantasy magic.

In the Discworld series of novels, the "morphic resonance" is the tendency of a mind to remember, effectively, what shape it's body is. As a result, after one's death, it is "morphic resonance" that keeps the soul looking like the original body. Furthermore, if one wishes someone into a frog, one magically alters his morphic resonance (making him think he's a frog) and poof, he becomes one. "Morphogenetic field" is also used in a very similar way.

I do not point this out as a criticism of you, but rather of Mr. Sheldrake, who from my perception is taking facetious concepts from humorous fantasy books and attempting to press them on the real world.

And by the way, thank you for providing this valuable internet resource.

Jim Bearse
Topeka, KS

21 Dec 2000

You might want to check out <http://www.indiana.edu/~pietsch/home.html> & <http://www.indiana.edu/~pietsch/memory-optics.html>

It goes into details on how the brain stores memories, based on controlled studies of salamander brains. When people, who know what they are talking about, refer to memory as holographic, they are referring to the property of holograms where any fragment of the whole can recreate the original hologram, but with not as much detail as the unbroken original. Along the same lines, the brain seems to store a memory throughout itself, and not just in one place. Any given chunk of the brain can be removed and result in the weakening, but not loss of memories. additionally, transplanting chunks of brains from trained salamanders (who have amazing regenerative abilities) into untrained salamanders will imbue the untrained salamander with the trick that the trained one was taught. It doesn't matter where in the brain the chunk came from.

-Devon



[morphic resonance](#)

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the Moses syndrome

(1) A delusion characterized by uncritical belief in the promises of others to lead one to the Promised Land, e.g., to beauty, youth, wealth, power, peace of mind, or happiness. (2) A delusion characterized by the belief that one has been chosen by God, destiny, or history to lead others to the Promised Land, e.g., some goal such as "putting the sciences on a firm foundation" (Descartes) or belief in such things as "the eternal law of nature that gives Germany as the stronger power the right before history to subjugate these peoples of inferior race, to dominate them and to coerce them into performing useful labors" (Hitler).

The Moses syndrome should not be confused with the *baby* Moses syndrome (the *hope-in-a-basket* fallacy), a kind of defense mechanism where one [deceives oneself](#) into inaction by the [wishful thought](#) that somebody else will eventually come along to solve your problems for you and save you from disaster.



Search the Skeptic's Dictionary



the Mozart Effect

"We have this common internal neural language that we're born with and so if you can exploit that with the right stimuli then you're going to help the brain develop to do the things like reason." -- [Dr. Gordon Shaw](#)

"We exposed these animals [rats] in utero and then sixty days after birth to different types of auditory stimulation and then we ran them in a spatial maze. And sure enough, the animals that were exposed to the Mozart completed the maze faster and with fewer errors. And now what we're doing is we're removing their brains so we can slice them and see neuro-anatomically precisely what has changed as a function of this exposure. So it may be that this intense exposure to the music is a type of enrichment that has similar effects on the spatial areas of the hippocampus of the brain." --[Dr. Frances Rauscher](#)

"Stories stressing that children's experiences during their early years of life will ultimately determine their scholastic ability, their future career paths, and their ability to form loving relationships have little basis in neuroscience." --[John Bruer](#)

The Mozart Effect is a term coined by [Alfred A. Tomatis](#) for the alleged increase in brain development that occurs in children under age 3 when they listen to the music of [Wolfgang Amadeus Mozart](#).

The idea for the Mozart Effect originated in 1993 at the University of California, Irvine, with physicist [Gordon Shaw](#) and [Frances Rauscher](#), a former concert cellist and an expert on cognitive development. They studied the effects on a few dozen college students of listening to the first 10 minutes of the Mozart Sonata for Two Pianos in D Major (K.448). They found a temporary enhancement of spatial-temporal reasoning, as measured by the Stanford-Binet IQ test. No one else has been able to duplicate their results. One researcher commented that the "very best thing that could be said of their [Shaw's and Rauscher's] experiment—were it completely uncontested—would be that listening to bad Mozart enhances short-term IQ" ([Linton](#)). Rauscher has moved on to study the effects of Mozart on rats. Both Shaw and Rauscher have speculated that exposure to Mozart enhances spatial-reasoning and memory in humans.

In 1997, Rauscher and Shaw announced that they had scientific proof that piano and singing instruction are superior to computer instruction in enhancing children's abstract reasoning skills.

The experiment included three groups of preschoolers: one

group received private piano/keyboard lessons and singing lessons; a second group received private computer lessons; and a third group received no training. Those children who received piano/keyboard training performed 34% higher on tests measuring spatial- temporal ability than the others. These findings indicate that music uniquely enhances higher brain functions required for mathematics, chess, science and engineering (*Neurological Research*, February 1997).

Shaw and Rauscher have stimulated an industry. They have also created their own institute: [The Music Intelligence Neural Development Institute](#) (M.I.N.D.). There is so much research going on to prove the wondrous effects of music that a web site has been created just to keep track of all the new developments: [MüSICA.](#), which has a section just on [the Mozart Effect](#).

Shaw and Rauscher claim that their work has been misrepresented. What they have shown is "that there are patterns of neurons that fire in sequences, and that there appear to be pre-existing sites in the brain that respond to specific frequencies."* This is not quite the same as showing that listening to Mozart increases intelligence in children. Nevertheless, Shaw is not going to wait for the hard evidence to pour in before he cashes in on the desire of parents to enhance their children's intelligence. He has book & CD coming out called *Keeping Mozart in Mind*. You can buy it from his institute after September 1999. He and his colleagues are convinced that since spatio-temporal reasoning is essential for many higher order cognitive tasks, stimulating the area of the brain associated with spatio-temporal reasoning and doing spatio-temporal exercises will increase a person's intelligence for math, engineering, chess, and science. They even have a software program for sale, which uses no language and aims at exercising spatio-temporal skills with the help of an [animated penguin](#).

Shaw and Rauscher may have spawned an industry, but the mass media and others have created a kind of alternative science which supports the industry. Exaggerated and false claims about music have become so commonplace that it is probably a waste of time to try to correct them. For example, Jamal Munshi, an associate professor of Business Administration at Sonoma State University, collects tidbits of misinformation and gullibility. He used to post them on the Internet as "Weird but True," including the claim that Shaw and Rauscher showed that listening to Mozart's sonata for two pianos in D major "increased SAT scores of students by 51 points." Actually, Shaw and Rauscher gave 36 UC Irvine students a paper folding and cutting test and found the Mozart group showed a temporary 8-9 point increase over their scores when they took the test after either a period of silence or listening to a relaxation tape. (Munshi also claims that science cannot explain how a fly flies. [Scientists have been working hard on this crucial problem](#), so we should give them their due.)

Don Campbell, however, has become the Carlos Castaneda and P.T. Barnum of the Mozart Effect, exaggerating and distorting the work of Shaw, Rauscher and others for his own benefit. He has trademarked the expression The Mozart Effect and peddles himself and his products at www.mozarteffect.com. Campbell claims that he made a blood clot in his brain disappear by humming, praying, and envisioning a vibrating hand on the right side of his skull. Uncritical supporters of alternative medicine don't question this claim, though it is one of those safe claims that can't be proved or disproved. He might as well claim that angels took the clot away. (One wonders why, if music is so good for you, he got a blood clot in the first place. Accidentally listening to rap music?)

The claims that Campbell makes for music are of an almost rococo flamboyance. And like the rococo, just about as substantive. [Cambell claims music can cure just about anything that ails you.] His evidence is usually anecdotal, and even this he misinterprets. Some things he gets completely wrong.

And the whole structure of his argument collapses under simple common sense. If Mozart's music were able to improve health, why was Mozart himself so frequently sick? If listening to Mozart's music increases intelligence and encourages spirituality, why aren't the world's smartest and most spiritual people Mozart specialists? (Linton)*

The lack of evidence for the Mozart Effect has not deterred Cambell from becoming a favorite on the lecture circuit with the naive and uncritical.

When McCall's wants advice on how to lose the blues with music, when PBS wants to interview an expert on how the voice can energize you, when IBM wants a consultant to use music to increase efficiency and harmony in the workplace, when the National Association of Cancer Survivors wants a speaker on the healing powers of music, they turn to Campbell (Campbell's website, www.mozarteffect.com).

The governors of Tennessee and Georgia have started programs which give a Mozart CD to every newborn. Hundreds of hospitals were given free CDs of classical music in May of 1999 by the National Academy of Recording Arts and Sciences Foundation. These are well-intentioned gestures, but are they based on solid research that classical music increases a child's intelligence or an adult's healing process?

Not according to [Kenneth Steele](#), a psychology professor at Appalachian State University, and John Bruer, head of the [James S. McDonnell Foundation](#) in

St. Louis. Contrary to all the hype, they claim that there is no real intelligence enhancing or health benefit to listening to Mozart. Steele and his colleagues Karen Bass and Melissa Crook claim that they followed the protocols set forth by Shaw and Rauscher but could not "find any kind of effect at all," even though their study tested 125 students. They concluded that "there is little evidence to support intervention programs based on the existence of the Mozart effect." Their research appears in the July 1999 issue of *Psychological Science*.

In his book [*The Myth of the First Three Years*](#), Bruer attacks not only the Mozart Effect but several other related myths based on the misinterpretation of recent brain research.

The Mozart Effect is an example of how science and the media mix in our world. A suggestion in a few paragraphs in a scientific journal becomes a universal truth in a matter of months, eventually believed even by the scientists who initially recognized how their work had been distorted and exaggerated by the media. Others, smelling the money, jump on the bandwagon and play to the crowd, adding their own myths, questionable claims, and distortions to the mix. In this case, many uncritical supporters line up to defend the faith because at stake here is the future of our children. We then have books, tapes, CDs, institutes, government programs, etc. Soon the myth is believed by millions as a scientific fact. In this case, the process met with little critical resistance because we already know that music can affect feelings and moods, so why shouldn't it affect intelligence and health? It's just commonsense, right? Yes, and all the more reason to be skeptical.

further reading

- [The Mozart Effect](#) by Michael Linton, head of the Division of Music Theory and Composition at Middle Tennessee State University
- "The Mystery of the Mozart Effect - Failure to Replicate" by Kenneth M. Steele, Karen E. Bass, and Melissa D. Crook in *Psychological Science* Vol. 10 No. 4 July 1999. [Available in PDF format](#) (requires Adobe Reader)
- [In Search of . . . Brain-Based Education](#) by John T. Bruer
- [The Musical Brain](#) by [Eric Chudler](#)
- ['Mozart Effect' Strikes False Chord](#)
- [Mozart's nice but doesn't increase IQs](#)
- [The Steve Halpern Effect](#)
- [The Mozart Effect](#) by Gary Kliwer (*New Scientist*) [Mozart plays to mixed reviews]
- [The Mozart Project](#)
- [The Don Campbell Effect](#)

- [Mozart for the Masses](#)
- [Suzuki Music Academy](#)

[Bruer, John T. *The Myth of the First Three Years* \(Free Press, 1999\).](#)

[Kandel, Eric R. & James H. Schwartz, eds. *Principles of Neural Science* 4th ed. \(McGraw-Hill Professional Publishing, 2000\).](#)

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[Moses syndrome](#)

[multi-frequency detectors](#)



[SkepDic.com](#)

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MFD (Multi-frequency discrimination or Molecular Frequency Discrimination)

The term refers to devices known as **Long Range Locators** used to find buried treasures, water, archaeological sites, etc. We are told that [Noah's Ark](#) was discovered in Turkey using one of these things! Others deny this, claiming that the alleged Ark has been exposed for years, is easily visible from the air, and is known to the locals.

One reason the world does not know more about these wonderful devices is because many of their users are engaged in illegal activities. Of course, the treasure hunters don't think of it that way. According to them it is because of "State and Federal bureaucracy" which "has made permitting so restrictive and the penalties so severe that there is a fear of announcing the smallest of finds."

As far as I can tell, an MFD is some sort of electronic device which can detect metal, infrared frequencies, temperature, magnetic fields or some other known property of physical objects. The likelihood that an MFD can distinguish Noah's Ark from a trash heap or buried treasure from buried garbage is about the same as a metal detector telling the difference between a gold watch and a pop top from a beer can.

further reading

- [Thor Tech](#)





SkepDic.com

[Satellite Search
Underway For
Noah's Ark By
Leonard David,
Space.com](#)

Noah's Ark

Noah's Ark is the boat built by the Biblical character Noah. At the command of God, according to the story, Noah was to build a boat that could accommodate his extended family, about 50,000 species of animals, and about one million species of insects. The craft had to be constructed to endure a divinely planned universal flood aimed at destroying every other person and animal on earth (except, I suppose, those animals whose habitat is liquid). This was no problem, according to [Dr. Max D. Younce](#), who says by his calculations from *Genesis* 6:15 that the ark was 450 feet long, 75 feet wide and 45 feet deep. He says this is equivalent to "522 standard stock cars or 8 freight trains of 65 cars each." By some divine calculation he figures that all the insect species and the worms could fit in 21 box cars. He could be right, though Dr. Younce does not address the issue of how the big boxcar filled with its cargo rose with the rainwater level instead of staying put beneath the floodwaters.

Those not familiar with the story might wonder why God would destroy nearly all the descendants of all of the creatures he had created. The story is that God was displeased with all of his human creations, except for Noah and his family. Annihilating those one is displeased with has become a familiar tactic of the followers of this and many other gods.

Despite the bad example God set for Noah's descendants--imagine a human parent drowning his or her children because they were "not righteous"--the story remains a favorite among children. God likes good people. He lets them ride on a boat with a bunch of friendly animals. He shows them a great rainbow after the storm. And they all live happily ever after. Even adults like the story, though they might see it as an allegory with some sort of spiritual message, such as *God is all-powerful and we owe everything, even our very existence to the Creator*. Furthermore, *the Creator expects us to behave ourselves*. But there are many who take the story literally.

According to the story told in chapter 7 of *Genesis*, Noah, his crew, and the animals lived together for more than 6 months before the floodwaters receded. There are a few minor logistical problems with this arrangement, but before getting to them, there is one other thing that needs commenting on. It is obvious that floods are no laughing matter. The destruction of life and property caused by floods has plagued many animals, not just humans, from time immemorial. To watch one's family or home swept away in floodwaters must be a terrible spectacle. To see one's children drown, one's life and dreams washed away in an instant, must be a devastating experience. But if one were to discover that the flood was not a whimsical effect of chance natural events, not unplanned and purposeless, but rather the malicious and willful act of a conscious being, one might add rage to the feelings of devastation. I suppose one could argue that it is God's world; he created it, so he can destroy it if he feels like it. But such an attitude seems inappropriate for an All-Good, Loving God.

the "finding" of the Ark

Yet, as preposterous as this story seems, there are people in the twentieth century who claim they have found Noah's ark. They call themselves "arkeologists." Yes, they say that when the flood receded, Noah and his zoo were perched upon the top of Mt. Ararat in Turkey. Presumably, at that time, all the animals dispersed to the far recesses of the earth. How the animals got to the different continents, we are not told. Perhaps they floated there on debris. More problematic is how so many species survived when they had been reduced to just one pair or seven pairs of creatures. Also, you would think that the successful species that had the furthest to travel, would have left a trail of offspring along the way. What evidence is there that all species originated in Turkey? That's what the record should look like if the ark landed on Mt. Ararat.

Still, none of this deters the true believer from maintaining that the story of Noah's ark is the God's truth. Nor does it deter those who think the ark has been found. For example, in 1977 a pseudo-documentary called "In Search of Noah's Ark" was played on numerous television stations. CBS showed a special in 1993 entitled "The Incredible Discovery of Noah's Ark." The first is a work of fiction claiming to be a documentary. The second was masterminded by George Jammal, who has admitted that the story was a hoax. Jammal said he wanted to expose religious frauds. His hoax was seen by about 20 million people, most of whom probably still do not know that Jammal did not want them to take it seriously.

During his show, Jammal produced what he called "sacred wood" from the ark, which he later admitted was

wood taken from railroad tracks in Long Beach, California, which he had hardened by cooking in an oven. He also prepared other fake wood by frying a piece of California pine on his kitchen stove in a mix of wine, iodine, sweet-and-sour and teriyaki sauces. He also admitted that he had never been to Turkey. The program was produced by Sun International Pictures, based in Salt Lake City, and responsible for several pseudo-documentaries on Nostradamus, the Bermuda Triangle, the Shroud of Turin, and UFOs.

the evidence for a universal flood

Stories of floods are not unique to the ancient Jews.* What geological or archaeological evidence is there of such a universal destruction of all human societies, all plants and all animals except for the ones on Noah's boat (or Ziusudra's [Sumeria], or Utnapishtim's [Babylon])? There should be a layer of sediment dating from the same time which contains all the bones of these poor creatures. There should be evidence that all human societies were wiped out simultaneously. No such evidence exists of a universal flood. Evidence of a great flood, perhaps caused by melting glaciers bursting through the Bosphorus strait some 7,000 years ago, has been discovered off the coast of Turkey by Robert Ballard (who found the remains of the Titanic) and [some \(like Ryan and Pitman\)](#) have claimed this is evidence of Noah's flood, but this is pure and inane speculation.* The Biblical flood is due to rain, not a bursting dam. As archeological anthropologist John Alden notes

...the story in the Bible is clear -- it rained for weeks before Noah's flood, and after it stopped raining the floodwaters receded. The Black Sea flood wasn't caused by rain, and after the water rose it never went away. And neither [the Sumerian nor the Biblical] story mentions the most dramatic consequence of the Black Sea flood, which turned fresh water into salt. Noah's flood, in short, doesn't sound anything like the inundation of the Black Sea.

However, for the sake of argument, let's agree that there was a universal flood, but that somehow the evidence got twisted around so that geologically and archaeologically it doesn't appear that the flood occurred. There are still a few questions we should ask before accepting this theory. First, how big was this boat? The answer: *really, really big!* Would it float? Noah might have been given divine guidance here, so maybe this boat could float. Remember that this is all done before the discovery of metallurgy, so the boat is made of wood and other natural materials. How many forests would it take to provide the lumber for such a boat? How many people working how many years would be required? Building a pyramid would be peanuts compared to building the ark. But remember, people lived a lot longer in those days. Noah was 600 years old when he built his giant boat in the desert.

But let's say that, however implausible, such a boat could have been built using the technology of wooden-boat building known to the earliest peoples. After all, Noah allegedly had God's help in building his boat. There is still the problem of gathering the animals together from the various parts of the world that, as far as we know, Noah had no idea even existed. How did he get to the remote regions of the earth to collect exotic butterflies and Komodo dragons? How did he get all those species of dinosaurs to follow him home? (Fundamentalists believe dinosaurs and humans lived at the same time.) By the time he collected all his species, in twos and sevens, his boat would probably have rotted in the desert sun.

But let's grant that Noah was able to collect all the birds and mammals, reptiles, and amphibians, and a couple of million insects that he is said to have gathered together on his boat. There is still the problem of keeping the animals from eating one another. Or, are we to believe that the lion was lying down with the lamb on the ark? Did the carnivores become vegetarians for the duration of the flood? How did he keep the birds from eating the insects? Perhaps, the ark was stocked with foods for all the animals. After all, if Noah could engineer the building of a boat which could hold all those animals, it would have been a small feat to add room to store enough food to last for more than six months. Of course, Noah would have to store enough food for himself and his family, too. But these would have been minor details to such a man with such a plan guided by God.

Still, it seems difficult to imagine how such a small crew could feed all these animals in a single day. There is just Noah, his wife, their three sons and three daughters-in-law. The "daily" rounds would take years, it seems. Delicacy forbids me from mentioning the problems of the "clean-up" detail, but I would have to say that if the noise of all those animals didn't drive Noah insane (not to mention the insect bites), the smell should have killed him. At least they didn't have to worry about water to drink. God provided water in abundance.

Finally, belief in the universal flood or even belief in the building of the ark are not nearly as strange as the belief that this event of mass destruction was the direct work of the Creator to show anger at people who would dare to enjoy this life and have a good time rather than spend all their free time worshipping the

Almighty.

See related entries on [faith](#), [miracles](#), and [wishful thinking](#).

further reading

[reader comments](#)

- [Problems with a Global Flood](#)
- 'Noah's Flood': off the edge of scientific speculation by John R. Alden (review of *Noah's Flood: The New Scientific Discoveries About the Event That Changed History* by William Ryan and Walter Pitman) removed from www.sunspot.net/content/archive/story?section=archive&pagename=story&storyid=1000000229416
- [Sun Goes Down in Flames: The Jammal Ark Hoax](#) by Jim Lippard
- [Has Anyone Really Seen Noah's Ark?](#)
- [RON WYATT: ARE HIS CLAIMS BONAFIDE?](#) by Bill Crouse
- [The Search for Noah's Ark](#)

Cerone, Daniel, "Admitting 'Noah's Ark' Hoax," *Los Angeles Times*, October 30,1993, p. F-1.


[Feder, Kenneth L. *Frauds, Myths and Mysteries - Science and Pseudoscience in Archaeology* 3rd ed. \(Mountain View, California: Mayfield Publishing Company, 1998\).](#)

Moore, Robert A. "The impossible voyage of Noah's ark," *Creation/Evolution* 11:1-43.

[Plimer, Ian. *Telling Lies for God* \(Random House, 1994\).](#)

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 [neurolinguistic programming](#)

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reader comments:

multi-level marketing

24 Mar 1999

Thank you for allowing me to comment on your MLM section. I am a student and advocate of professional MLM. I have a few factual corrections to add.

Your first paragraph: Network marketing (NM), which includes both MLM and Direct Selling, is a distribution and sales method that adds the power of networking (the sharing of information and resources, or leverage and delegation) to the marketing process. It often emphasizes recruiting because that is how more product (merchandise) is sold. The greater the sales force, the more merchandise marketed. As such, it is intrinsically unblemished.

reply: There is a big difference in recruiting sellers of a product and recruiting recruiters to recruit more recruits of recruiters ad infinitum. All markets are finite. MLMs might work in an ever-expanding market of unlimited dimension.

In addition to marketing merchandise (product category one), NM also markets hope to people (product category two). I call this the "idea behind the business." Here we are looking for people to do something more important than merchandise marketing or business building. Here we are looking for people who want a feeling of control in their lives along with a feeling of self-esteem, self-fulfillment and accomplishment. Here we are offering people an opportunity to practice being the best they can be. The idea behind the business has great attraction for many people because of the frustrations and stress they feel in their lives and work. People often feel hopeless. Some find hope in NM. They believe-a feeling of certainty--certain of the possibilities.

reply: Yes, you are selling hope to the hopeless but any relief you give is only temporary.

It is true most people quit their NM business. I think this is do more to unrealistic expectations than any serious flaw with NM.

reply: Obviously, I think otherwise.

Your second paragraph: The reason MLM plans cannot succeed has nothing to do with pyramids. Pyramid selling is a system of selling goods and services to consumers by settings up a structure consisting of layers and layers (multilevel)

of sales agents whose ultimate objective is to sell goods and services to consumers. At the heart of every successful sales force is the recruitment and selection of effective sales representatives. This is very advantageous to the company owner(s), suppliers, distributors and consumers. Its a win-win situation. It's what relationship marketing is all about. The ultimate outcome of relationship marketing is the building of a unique company asset called a "marketing network." This network consists of the NM company and all supporting stakeholders: customers, employees, suppliers, distributors, retailers and others with whom it has built mutually profitable business relationships.

reply: Again, any market is finite. Eventually, the recruited become the only buyers. Do the math. In any town, of any size, you eventually run out of people to recruit. The only thing you never run out of are people who might buy your products, and most of those people will be involved in the program because they think they're saving money by buying the products direct.

Your third paragraph: Direct sellers (face-to-face selling away from a fixed retail location) market merchandise to consumers. NM plans do not 'require' direct sellers to recruit people. It's optional. Many do recruit a sales force because more merchandise is marketed and more profits are made.

reply: I'm glad you are here to set the record straight. Every MLM I've read about is based on the notion that it is different from direct selling because you recruit recruiters. Of course, no one is "required" to do this, but that is the main selling point of MLMs, so this seems to be little more than quibbling over a word.

The people you recruit are not in direct competition with you. I believe you're referring to the concept of "market saturation." This theory just does not hold up in the real world. After at least three decades of recruiting, NM companies have barely scratched the distributor and consumer markets (less and 1%). The MLM "saturation theory" has been tested in many court cases (Go-Re- Mar, Amway & Avon) and is unfounded. Walk onto the first floor of any department store and note it is almost entirely filled with cosmetic counters. Likewise note the health and nutritional section of every major supermarket chain. As long as you see these departments, you will know there is plenty of markets for network marketers.

reply: The distributors are the ones buying most of the products. The only one who will get rich in this scheme is the one who started the thing, like the founders of AMWAY.

Illegal pyramid schemes are doomed to fail due to the intrinsic nature of their operation--there is no consumer market to purchase any item of value. Many people confuse the two. They are kissing cousins in design but not in operation.

The difference is a difference that makes a difference.

reply: Really?

Your fourth paragraph: There is no need to alienate anyone least of all family or friends. Practicing Professional Integrity Selling will keep you out of trouble. This type of selling is fulfilling needs and wants. There is no trickery involved. People, in general, practice deception all the time whether in traditional or nontraditional business. NM does not have a corner on deceit. How often I would go into stores and ask, "How you doing?" They would reply, "Fine!" The following week the store is closed. Positive thinking? Lying? Doing great? Business wonderful? You call it. It happens all the time. People are strange.

reply: Finally, we agree on something!

Your final paragraph: You still don't seem to understand the overall concept. The idea of selling goods to people and encouraging them to sell the goods to others is merely Direct Selling on multiple levels. The distributor is selling the goods themselves. They are merely offering a value-added business opportunity to others who want to take advantage of it. The ultimate goal is to market more merchandise. It's managing, selecting, training, supervising, motivating and evaluating sales representatives. It's entrepreneurship. There is nothing inherently evil with the concept. What people do with the concept is another question.

reply: If MLMing is "direct selling on multiple levels" then Mickey Rooney is a serial polygamist. It is what it is, whatever you call it.

I hope these factual comments help you understand this misunderstood industry.

All the best.

Steven Brownstein

reply: I'll let the readers decide if this help understand the misunderstood.

21 Sep 1998

Thank you for your write up and links on multi-level marketing. While I was doing my laundry at a public laundry mat, several individuals tried to get me to sign up with Excel -- long distance carriers. They never once stressed why I should have Excel as my carrier, and they never asked whether I used long distance. (I don't.) I was told how much money I would make by 'helping people'. Unfortunately, they kept coming back to the laundry mat. I finally informed the local authorities who put a stop to their activities since door-to-door sales are prohibited in our county. Your article helped me greatly. I was able to say "NO". Thank you.

Virginia Carper

23 Nov 1997

I would like to obtain your permission to use, adapt and/or to translate the content of your web pages in a publication to make South Africans aware of the issues not told by the Multi-Level marketing companies. This publication will be published for profit with or without endorsements from The Minister of Trade and Industry, the Business Practice Committee and the Consumer Council.

Recently I was one of many South Africans who lost a great deal of money to a West Indies based company. I believe the total loss was \$29,000,000. The industry is booming in South Africa and there is no way to educate South Africans quick enough to protect them. If only I saw these pages before my meeting, I would have spotted the warnings before I have joined.

South African Minister of Trade and Industry are looking for input from the public to put legislation in place to stop the Multi-level marketing Industry. I would like to send him a copy of your pages with your permission.

Lourens Human

You have my sympathies and my permission to use my materials.

29 Mar 1997

Yes. I'm in MLM. But, then, so are you with your WebPage on Critical(?) thinking.

You're a hoot!

Look, friend, no matter how it's done, no matter the format, every business enterprise is MLM. You simply have to set up your own criteria, ascertain your goals, recognize that it's not going to be easy, and get to work.

reply: If every business enterprise is MLM, then MLM is not unique, not special, and not worth our interest.

There have always been those that are looking for the easy dollar from some gullible soul. This can be said of any enterprise on the market

reply: First we learn that all business enterprises are MLM, and then we learn that all enterprises are looking for the easy dollar from gullible souls. You really do understand economics better than anyone I've met so far.

-most especially your offer to instruct people on how to be as skeptical as you purport to be by shelling out \$2-.95 for your coffers.

reply: I assume you are referring to my book *Becoming a Critical Thinker* (\$15 plus postage & handling). If I wanted to make easy money by writing a book, I think I would have chosen another topic, such as *Six Easy Steps to Finding the True You and Your Path to Success*.

Do yourself a favor? Take a good look at the way that big business is downsizing. This is affecting everyone. and if people adopt your "skepticism", they'll be so paralyzed with "skepticism" (proper definition: fear) that they'll be even more susceptible to the "blame-everyone-for-my-joblessness" bunkum that the lazy promote when they find that self-pity has landed them without the income to insure against homelessness.

reply: You're not only an expert on economics, but on social problems as well. I must admit that you make connections I have trouble following. I understand downsizing, but don't see how I'm doing myself a favor by taking a good look at it. I don't think those who are downsized or outsourced will be paralyzed by skepticism, though I can understand why they would fear the future, especially if they are older. Being skeptical about occult, paranormal, supernatural or pseudoscientific matters isn't likely to play a role in the decisions of those unfortunate enough to be victims of downsizing. But if it does play a role, I think it will be a positive one, helping people avoid making bad decisions out of desperation.

No need to reply, for I know this message will be too hard for you to accept in your fearful little world of "skepticism".

P.S.: Were you one of those people - like me - who thought that the chance to buy into a little-known company (named Xerox) in the mid-seventies was too risky because it seemed "too good to be true"? I'll bet you were.

Sheila Middlebrook

reply: Unfortunately, when Xerox stock came on the market I was too young and too poor to have known or cared about it. It is frightening, though, to find that you and I have so much in common.

30 Nov 1996

Harassment of this kind need not restrict itself to the sale of MLM "opportunities". Recently, several of our middle-managers were forced to submit to [Meyers-Briggs](#) typing, which can be seen as a pseudoscience. Other managers might become enamored of various "motivational" gurus and try to impose their cult techniques on unwilling subordinates. What this boils down to

is an equal-opportunity employment issue, where the forced belief is analogous to a religion. Anyone in a supervisory stance therefore runs considerable risk when attempting to impose unproven or fringe methodologies within their organization. Some enterprises, of course, permit much more latitude than others in this regard. Your example from the U.S. Navy is one where rogue supervisors will have much less success than in small businesses with only a handful of employees.

Raymond Bayerl



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reader comments:

multiple personality disorder

15 Oct 2000

If you are serious about being open minded and examining evidence that may refute your position, you may find my experience a counter example to the social construction theory of DID. I was raped by my brothers and their friends when I was nine, and my brother repeated it numerous times. My memory of the first experience has been continuous, those for the subsequent ones more vague (but confirmed by my brother). This happened in 1960. In college I became aware that I was nearly totally amnesiac for the years from 9 to 14, and had extensive amnesia for many parts of the high school years; this became obvious to me when I realized how impoverished my personal memories were compared to those of friends.

Between then and now I became a scientist (currently a full professor at a big 10 university), had numerous episodes of depression (which went undiagnosed for a long time), married, divorced, remarried in 1982 and now have a family of two children and a wonderful husband. My depressive episodes always had a quality of "happening to someone else" about them; this is recorded in various journal entries I have made at different times. In 1997 during my last episode of depression I became aware of voices in my head arguing about things I was trying to do; the sensation was that an "observer I" was listening to a child's voice of whining helpless hopelessness, and a adult woman's voice trying to urge her to action and scold her.

In 1999 with the support of a family physician I began to learn more about the effects of incest and to come to terms with my brothers. In the course of reading I learned a great deal more about depression and with my physician's support designed a prevention program. I also for the first time came across the psychiatric definitions of dissociation and the various dissociative disorders. Among them I had the symptoms of dissociative amnesia (as I described above), dissociative fugues (short ones lasting one to two hours that have occurred at times of very intense stress; perhaps a total of eight to ten such episodes over the thirty years, the most recent in 1987), depersonalized experiences, mostly of intense natural beauty, and small time gaps (1-3 hours at a time where I could not remember what I had been doing). When I read the criteria for DID my reaction was, "That's odd! That could fit me - but I'm not messed up like the people who have that." I did not give serious thought to my having DID again.

This spring my physician asked me to undergo an evaluation by someone experienced in treating people with abuse so that if I have another episode of

depression he would have recommendations on how to treat it, given my history. In the course of the initial meetings with the therapist, as I heard my self telling her these things and others, like not remembering writing my own articles (!), the possibility of DID re-emerged. With her support my therapy since then has used this model as an important component, namely my focussing on self-awareness, self-acceptance and self-regulation. Another part of it was consciously using the first person pronoun when I thought about myself, as I had become aware that I thought of myself as "you" or even "they" at particularly distressing times. Early on, I experienced what seemed to me like the integration of several child parts. After this, several things changed at once; a long standing knot of anxiety dissipated, a buzzing noise in the back of my thoughts stopped (I had not been aware of it until it stopped), difficulty orienting to the day of the week on waking stopped, my memory for daily life events improved, and the short time gaps diminished and now are gone. Daily activities became simpler and easier to do. There were no more episodes of "voices in my head." Several subsequent "integrations" or whatever you choose to think of them have also been followed by less distress and better function.

Please note several things: I have never been hypnotized. I have had continuous memory for the abuse. I had never read nor seen Sybil, the Three Faces of Eve, or any other MPD stories. I had no interest in the "recovered memory" movement of the eighties because my memory was continuous; I would rather have forgotten than remembered. I cannot see in my past any secondary gain whatsoever from what I interpret as DID. Several previous rounds with therapists did not relieve the symptoms or the distress, although they helped in most cases with other presenting problems. My therapist did not suggest the diagnosis; it was a matter of my recognizing in my own experiences the criteria of the DSM diagnosis. Nor was there ever any attempt to elicit from me any of the symptoms.

It is clear that there has been an overuse of DID and that it has been casually applied by people who have very little training or critical capacity. I don't know exactly what to make of the satanic ritual abuse stuff; it could be paranoid schizophrenia, BPD (as you suggest for DID) or some sort of folie a deux between the patient and the therapists, a mass hysteria like the Dutch tulip craze of the seventeenth century. There is in any case no objective evidence for any of it, as far as I am aware.

However, severe childhood sexual abuse (severe meaning involving intercourse or other penetration) is common; 5-8% of women have experienced it, based on several reputable, population based studies, most recently one in the current issue of Archives of General Psychiatry. Given its prevalence, I find wholly believable the population studies in several countries that suggest a prevalence of DID in the range of 0.5 - 1%, with the understanding that many of these people would be like myself: functional in many ways but in great interior distress. Just as for every person with depression that needs hospitalization there are five to ten in the community, more functional but still in significant distress, I believe that there are a similar proportion of people like myself who

have struggled with this problem and managed to cope in the community.

It is good that bad therapeutic practices, ones likely to lead to confabulated or false memories, are brought to light and seen as unwise or damaging. It is tragic that blanket statements are leading to a second season of silence, one in which actual deep human suffering is being denied and forced into silence again. As a child I was told by my brother that no one would believe me; it took nearly forty years to find the interior strength to break fully free from that. Black and white treatments of this troubled question, ones that deny even the possibility of DID as a spontaneous, interior reaction to horrific childhood experiences, threaten to silence millions of others. Please reconsider your page and revise it; I would be happy to provide citations from mainstream psychiatrists such as Richard Kluft, whose work with DID predates the fad and involves none of the marginal ideology of the people you cite.

Name Withheld

reply with responses in italics from the letter writer:

You don't say specifically what it is about my position that you think I should reconsider, so I will have to guess here at what you are objecting to.

You seem to think that I think that the self is *nothing but* a social construct. That is not my position. I believe the self is in large part a social construct, but has a biological basis as well. Oliver Sacks and other neurologists have written about some interesting cases of brain damaged people who lose their sense of self. Part of the self is obviously connected to memory and if memories are lost, so is an essential element of one's self. Part of the self connects consciousness with one's body. That sense of connection has a neurological basis. Part of the self is obviously a developmental response to one's personal experiences. And part of the self is a matter of role-playing and social expectations.

What Spanos argued for, and the position I agree with, is the notion that multiple personality disorder as classically described is unlikely to be correct. That most cases of MPD are therapist induced.

This is exactly what I am disagreeing with; that there is no...socially constructed MPD.

reply: I'm afraid the evidence is against you here. Even [Dr. Bennett Braun](#), the founder of the International Society for the Study of Multiple Personality Disorder, now known as The International Society for the Study of Dissociation, has been found guilty of inducing MPD in a patient. There are other cases as well; to find them just look through the lists of further readings in my entries on [MPD](#), [false memory](#), and [repressed memory therapy](#).

Your case history does not seem to be a counter-example at all, but rather

a supporting example. The classical model assume that MPD begins with sexual abuse of a child which is repressed. You note that the memory of your abuse has been continuous, not repressed. The classical model of MPD claims that the child creates alters to aid in the repression.

I'm not sure what you call "classic," but DSM IV does not require amnesia for the abuse as one of the diagnostic criteria. Follow-up studies of documented abuse found that over a third of those abused did not remember it; another third had had intermittent memories for it. Many of those treated for DID have continuous memories for the abuse in at least some aspects.

reply: The DSM-IV has removed "multiple personality disorder" altogether, but [some influential therapists](#) are still adhering to the description in DSM-III and do not agree with the American Psychiatric Association's that "dissociative identity disorder" covers all the bases. I believe you are correct about the DSM-IV diagnostic criteria, but therapists are not required to use those criteria and many do not.

What I did not elaborate on in my first note (as I had no idea whether you would read it seriously) is that key elements of the abuse memory were inaccessible until this spring; the part of the memory that I was finally able to recover was that I had enjoyed the experience (no physical violence had been used) and that that was the part of me that remained hidden or inaccessible, a child-like part that felt deep shame and guilt because of willingly participating. My "rational" self has known since fourteen that I was not guilty of anything; this hidden self still felt responsible, until I had access to this and could address it.

Here is an analogy, or a small example, of how I believe these things work. I am certain you have had this experience - you are trying to remember a name or a word and it escapes you for the moment. Hours, even days later, the sought for word forces itself into your awareness. It is as if we have small mental file clerks that can accept an assignment and circulate in our brains until that assignment is complete. I believe that this is an analogy, or even an example of, how dissociated parts operate, encapsulating a limited range of thought, feeling and action that are only expressed in limited contexts and that operate outside the domain of active awareness.

The kind of amnesia you refer to is common to many of us who have never been abused. I, too, have amnesia for most of my childhood, adolescence and a great part of adulthood. Compared to my wife of 32 years, who remembers vast amounts of details about our children and ourselves, I might as well not have experience 90% of those years, for I can't recall most of what happened during that time. I can't remember writing some of the entries in the *Skeptic's Dictionary*. Sometimes I can remember having written the entry but reading it after a few years is like seeing something for the first time. The kind of amnesia of the classical MPD patient is

amnesia regarding the abuse or behavior engaged in which is abusive itself, such as raping women by night while practicing dentistry and attending PTA meetings by day, or murdering women while "Steve" and being a nice guy while "Ken."

Again, "classical" by what standards? I am not trying to defend every form of therapy for DID; I know that people like Braun or Allison have some strange ideas. But you don't seem to have read anything by Kluft, a thoughtful mainstream psychiatrist with none of their baggage. And I didn't tell you everything about my amnesia, either - would you, to a complete stranger? Do you routinely have several hours pass where as soon as they are gone, you have no idea of what happened? I did for a long time; that is quite different than a bad memory for children's birthday parties.

reply: Yes, the kind of amnesia you describe is not common and is symptomatic of a disorder of some kind. At the risk of sounding insensitive, however, I must ask how anyone could know that these fugue states are causally connected to the abuse you suffered?

Classical MPD posits alters that are mostly impenetrable and isolated. Feeling detached from oneself while depressed is quite different and, I suspect, quite common.

Actually, no; I learned a great deal about depression when I was designing a prevention plan with the help of my physician. The significant aspects of depression are affective (feeling sad, hopeless, helpless, bad), behavioral (inactive or agitated) and physiological (changes in sleep, eating, weight). "Feeling detached from oneself" or anything like that has never been listed as a common aspect of it, and believe me I have read a lot of it.

I have never been diagnosed with clinical depression but like many people I go through periods where I am pretty much indifferent to almost everything. I, too, feel detached from myself and feel like the "real" me will return soon. I don't doubt that seriously depressed people experience a much deeper dissociation that I do, but positing "alters" to explain these feelings is a bit much.

No, "hearing voices in the head" has a fairly short differential diagnosis. Besides DID, the list includes schizophrenia (doubtful that I would have become a full professor if I had that), psychotic depression (a form so severe that it usually requires hospitalization or ECT) and schizoaffective disorder (which mixes both). Frankly, I find it hopeful to have DID by comparison; people don't get better from schizophrenia.

reply: There is a professor at UC Davis who has schizophrenia. It is true that the disease does not go away but it is treatable and some people are able to function at very high levels despite the disorder. Because of the

stigma associated with mental severe mental illness, those who are "survivors" and functioning at a high level usually do not choose to come out of the closet.

There is, by the way, a school of psychotherapy that posits that all people have parts, and that difficulties come from not having full and ready access to those parts or conflict between them - two schools, actually. The more recent American one is called internal family systems therapy and an older Italian one is called psychosynthesis. On these two models, DID is just an extreme form of a kind of self-unawareness that can be a problem for many people.

It sounds like you have a reputable therapist who did not assume before you walked through the door that he or she knew the cause of your disorder. I agree that the charges against so many therapists putting false memories in their patients can have a deleterious effect on those who truly were abused and who truly do suffer some degree of dissociation. But I believe the fault is not with those of us who expose bad therapies, but with those who practice those therapies, regardless of their intentions.

It sounds like you have a reputable therapist who did not assume before you walked through the door that he or she knew either that you had a disorder or the cause of your disorder. I agree that the charges against so many therapists putting false memories in their patients can have a deleterious effect on those who truly were abused and who truly do suffer some depression and some degree of dissociation. But I believe the fault is not with those of us who expose bad therapies and therapists, but with those who practice those therapies, regardless of their intentions.

I hope that my writing will steer people away from the charlatans and towards responsible therapists.

But then I wish you would also call attention to responsible therapists who treat DID! People with recurrent depression and DID classically have the depression recur until the DID is treated. I worked with several good therapists on various problems over the years; they helped (some) with the specific problems, but NOTHING like the relief and improvement in function that I have experienced with therapy specifically directed toward DID by someone experienced with it. I find quite believable the population surveys that suggest an incidence of DID in the range of 0.5 - 1%, if that is taken to mean people like myself, and they will not get relief from drugs or from non-specific therapies. The excessive scepticism, that claims that there is no spontaneous DID and that the iatrogenic form can be "cured" by ignoring people, will only make it that much harder for these people to find true and last help. You may well damage more people than you help if you solely focus on the bad therapists and deny the existence of responsible ones.

reply: I don't deny the existence of responsible therapists. If my writing

steers just one budding therapist away from doing bad therapy and harming who knows how many patients, I will consider it worthwhile.

16 Sep 2000

I happened upon your website by accident and I can't bear to leave without telling you that MPD (now called DID) does exist. I know, I have lived it and, to some degree, I will continue to live with it for the rest of my life. No therapist prompted me, no one "suggested" anything to me.

You speak of something you know nothing about and with such arrogance. What do YOU think happens to children who are horribly abused? To be sure, some die of the trauma, others become mentally ill, others become sociopaths and SOME, under the right conditions, learn to "go to sleep" by burying the horror deep within the psyche. A substitute for the "sleeping" part is invented, and so the house of cards is built, part by part. The concept is at once simple and extremely complex.

reply: Are you claiming that you have discovered this on your own, without having read any of the literature on this subject, or having seen any of the films depicting people with multiple personalities?

With the eerie connotation of MPD, I can understand that some minds cannot grasp what they cannot see - cannot get past the "Sybilization" of it. If man's landing on the moon had not appeared on television, I'm certain those with the inability for abstract thought would categorize the achievement as a hoax. DID (I like this term because it is less scary to childlike minds) is primarily a terribly painful healing process. Reliving catastrophic stress at the child level is the heart of it. It is a coping mechanism that will allow the child to appear to be normal.

reply: Again I ask: are you claiming nobody suggested any of these notions to you? You came up with them all on your own?

I graduated from college, trained customers for IBM, sold [Premarin](#) to doctors, taught at the community college level (after attaining a M.A.) and sold packaging products very successfully before the "house of cards" fell to pieces. I had no therapist who counted personalities. I was always co-conscious. No part appeared terribly different from another. There were no monsters or Mr. Hydes. Mostly, it has been just PAIN. Walk a mile in my shoes.

Mary Lu

reply: I think you have misunderstood what I have written. Suggestion can be subtle. It can occur without our even being aware of it. From your description of the causes and mechanism of your illness, it appears very obvious that the diagnosis and explanation of your illness have been

suggested to you. This in no way implies a denial of your pain and suffering.

Mary Lu replies

17 Sep 2000

Making assumptions based on insufficient knowledge indicates, to me, poor reasoning ability. For the sake of brevity, I left out several hundred pages of evidence that would demonstrate that I realized there was more than one of me long before any therapist. I did not even know that it had a name, I just knew something had gone terribly wrong with me. I hope for the sake of mankind that you are not a researcher. I don't need to debate with you what I know I have suffered through for so many years -- no one can "suggest" the kind of psychological pain that is the major part of healing. You know naught of what you speak.

reply: You seem to think that I have diagnosed you incorrectly or have denied the existence of dissociation, neither of which is true. I've never diagnosed you, but I have presented a case for the position that the self, however it is construed, is a *social* construct. This is not to deny that biology or personal experience do not affect the self in profound ways. It is, however, my opinion that the arrogant ones are those therapists who *assume before even meeting their patients* that their patients have been sexually abused as children, have repressed all memories of the abuse, and that the job of therapy is to help the patient recover those memories before there is any hope of recovery.

There is ample evidence that therapists can and have suggested things to their patients which have caused the patients great psychological harm. See my entries on [false memory](#), [repressed memory therapy](#) and [satanic ritual abuse](#) for examples. Read the news story on the MPD page about what Dr. Bennett Braun did to Patricia Burgus.

*To the argument that some therapists never see MPD, I must tell you this brief story: Believing that if I could just find another antidepressant that would work safely with Parnate my world would return to normal, I consulted Dr. Uran, on the faculty at Oregon Health Sciences University. He did come up with the sought after antidepressant (although it made no difference). I saw him twice. The second time he said, "I didn't recognize you. You don't seem like the same person; in fact, you don't even look like the same person." My mind was saying "He thinks I'm the same one!" Later I learned that Dr. Uran and his colleagues on the hill deny the existence of MPD. If asked, I'm sure he would deny ever having seen a case of MPD and, he's right, he **COULD NOT SEE IT**.*

I suspect that further communication is pointless. My experience has been that people who carve their beliefs in granite have a severe deficit in analytical ability.

reply: I agree. Of course it is impossible for someone to give a diagnosis of a disorder he or she does not believe exists. In itself, however, that fact is irrelevant to who is right about MPD.

Your comments have made me realize that my writing was not clear enough. I don't think Spanos' arguments imply that MPD does not exist, but that the explanation of its origin, and by consequence the appropriate treatment for it, are not justified. I have rewritten large parts of the MPD entry to try to clarify my position and what I think is Spanos' position.

I have also introduced some new views. Dr. Hughes thinks MPD does not exist. Dr. Allison thinks it does and that spirits and angels are involved in the process. Dr. Coons buys into the standard MPD paradigm (Sybil) hook line and sinker, adding that demonic possession was a forerunner of MPD.

The fact that the Sybil case is the paradigm and forerunner of modern MPD cases, and that the Sybil case seems most likely to have been contrived, strongly suggests that Dr. Coons is not on the right side of this argument. The fact that there are no cases to speak of involving adults who suffer tremendous torture, trauma, abuse, etc., who defend themselves by creating "alters" strongly suggests that this explanation is bogus. Adults who are kidnapped and made into sex slaves, prisoners of war, etc., have as much desire to survive as children do. If the dissociation tactic is open to children it ought to be open to adults, yet it does not seem to be one they take. Furthermore, all the research that has been done on trauma demonstrates that the more traumatic an experience the more likely one is to remember it, which contradicts the repression theory. This does not mean that no child has ever been abused or repressed the memory of it or that DID is not sometimes brought about by sexual abuse. But the evidence does strongly suggest that as a model of DID, the Sybil model is a profile likely to cause more harm than good.

Mary Lu replies and bids us adios!

23 Sep 2000

In college the dept. chair was also my advisor. I took many classes from him. He was probably one of the worst teachers I've ever had, yet he was supposedly teaching us how to teach. He spent most of our valuable class time talking about the different points of view presented by his peers in the various business journals. Their "research" was so far removed from the real world that his ravings or rebuttals meant nothing to us and contributed nothing to our ability to leave that institution of higher learning and know what on earth to do in a classroom. Frankly, mostly I learned from my cooperating teacher and from good old OJT.

If you wonder why I told you that "parable", then just let it pass you by.

I could not find the first article you mentioned in your reply regarding false memories. I can only guess at what you said. If in it you suggested that some memories are false, you are partially right. Our subconscious (at least mine) doesn't seem to speak English especially well. However, I've noticed that it speaks symbolically. Any therapist who takes every detail of a memory literally is either inexperienced or not really up to the task of working with whatever name you want to put on it (MPD, Repressed Memory, DID, etc.) I get from you that everything must have an "either-or" to it. Be good or bad, black or white - that everything must be clearly defined. Frankly, I think most behavior, traced back to its roots, is a mish-mash and mostly in gray tones. Actually, I think any therapist who actually believes he/she can determine the total truth of a reported memory is a fool. The human mind is far too complicated. Furthermore, a "memory" might be a "feeling" which has worked its way into consciousness only after exhausting the conscious mind and the body through lack of sleep and extreme stress. The best word for this process is "AGONY." This kind of "memory" cannot be "planted" by a therapist. And this kind of "memory" is very real. There is no mistaking terror. The word should be in huge letters with every horrifying adjective imaginable preceding it.

Have you considered the possibility that one person might fall into all categories. In the very beginning of my nightmare, there were several very different whole personalities. No, they did not have names. I finally put names on them simply for reference sake. Mostly I named them for their most outstanding characteristic. There was teacher, mother, little girl, center and the severely handicapped Mary Lu (the core and the most debilitated). Eventually, they merged and when it happened. I had to hold on to the kitchen counter because my body shook. It was, in fact, a huge internal earthquake. That was a major turning point. There were a few others, one who only came out in sexual situations, one for rage, etc.

Oddly enough, the most painful part of the process is when the "feeling" memories finally make their way out. In every instance, so far, the feelings match up with actual memories I've always had of my childhood - I simply buried the feelings because, I suppose they were too painful to feel at the time. So far, you can say that I had MPD, DID and repressed memories. The main exception to this is the neglect as a baby and as a toddler. Those "event" memories came from "pictures" that kept popping into my mind, but it was my body's actions that finally made me understand what the pictures meant.. Too long and involved to explain here.

I did read the Coons article and I don't remember any statements about demonic possession being a forerunner of MPD. If I had the time and energy, I would explain to you how I believe people will often talk of Satan and God and battles between the two, but frankly, I think you would misinterpret what I was saying. Besides, it is too complex and I am not inclined to put forth the effort.

I agree that MPD has been "Sybilized" - but it was the mental health community

that stuck the name on it. A doctor whom I trust and is well experienced told me that the vast majority of MPD cases are actually co-conscious (as was I). Maybe now by calling cases like mine DID, they can get around to the business of actually helping instead of worrying endlessly over labels. Actually, none of my therapists have ever labeled my condition. They didn't need to.

Finally, I want to ask. Who are you? What kind of training did you have in mental health? I ask this because I find it hard to believe that anyone, even a lay person who has read at least a few "self-help" books would know that children are not simply little adults. You said:

The fact that there are no cases to speak of involving adults who suffer tremendous torture, trauma, abuse, etc., who defend themselves by creating "alters" strongly suggests that this explanation is bogus. Adults who are kidnapped and made into sex slaves, prisoners of war, etc., have as much desire to survive as children do. If the dissociation tactic is open to children it ought to be open to adults, yet it does not seem to be one they take. Furthermore, all the research that has been done on trauma demonstrates that the more traumatic an experience the more likely one is to remember it, which contradicts the repression theory.

I would hope that any training in psychology would include some amount of information on child development. Very small children have capabilities they lose as they grow older. Surely there is ample evidence of the remarkable ability of small children to become bilingual very quickly. Conversely, small children would not have the coping ability of adults, or the sense of time or place. To a very small child, mother is the world. To an adult, the world is the world. To an adult, solitary confinement might be survivable by any number of coping mechanisms. How does, for example, a toddler survive day after day of solitary confinement? Maybe, just maybe, they simply escape the horror of it by simply "going to sleep" - in other words, burying the pain (and part of themselves) very deeply in their subconscious. When mother does retrieve the child, the original baby is deeply buried in "sleep". Mother doesn't notice because a "new" baby, nearly identical in personality is there to greet her. Using this method, the child can survive and appear to be perfectly normal. My understanding is that no one really knows why some children are capable of doing this "splitting off" and others are not. Some say intelligence and creativity are the critical factors. Also, it seems the child loses this ability after the approximate age of seven.

When those feelings, apparently secreted in one area of my psyche, finally merged into what is "me", I screamed and begged for mercy. I called my doctors repeatedly screaming for help. Eventually, I came to realize no one could help because it was inside my head. The choice for me was to develop a coping mechanism or commit suicide. I don't remember making a conscious choice or deciding on what to do. I just did what my mind and body led me to

do. I drove to a mall parking lot (seeing people even at a distance) at least kept reminding my thinking brain that this was reality. I held tightly to the steering wheel to feel grounded, and let the unimaginable fear consume me again and again and again until, after truly torturous hours, my mind began to build an immunity from the onslaught. Even now, four years later, any slight sense of abandonment will jangle that fear again although the pain is far less intense and is short-lived.

I don't know why I am bothering to tell this to you, some faceless person whose credentials may be questionable and whose mind appears to be set on fine lines rather than the broad picture. Why do you write what you do? What motivates you? Have you any training in the mental health field or are you a "wannabe". Maybe your heart went out to some controlling bastard who managed to convince you that his daughter's insistence of incest was "planted" by some stupid psychologist. I won't disagree there are good and bad in every profession. I am sure there are some therapists who began to see sexual abuse in every client. I am just as sure there are parents who will go to any extreme to cover the horror of their actions. By the way, who invented the term "false memories?"

Adios Amigo

reply: Adios. No mas, no mas!

24 Dec 1999

I just finished reading your entry on MPD, and I couldn't agree more. I am a master's level social worker, and my graduate training took place on an inpatient psychiatric unit. During my internship, I was fortunate enough to actually see a case of dissociative identity disorder.

The patient was a young woman who claimed to have about five different personalities. At first, the staff at the hospital took her claim at face value. Then we began to notice a pattern in her behavior: whenever she wasn't the center of attention, she suddenly switched personalities. During one of her supposed personality changes, she threw herself on the floor and began to have a temper tantrum like a five year old child. My supervisor instructed the staff to ignore her instead of fawning over her, and the result was quite interesting. She suddenly stood up and screamed, "You people don't know a damn thing about multiples!!!" She then stormed out of the room. She didn't switch personalities again for the remainder of her stay in the hospital.

It is my opinion that most patients who present with "MPD" should really receive a DSM-IV Axis II diagnosis of borderline personality disorder. People with BPD are notorious for trying to hook their therapists into a long, drawn out "therapeutic" relationship for the sole purpose of gaining attention. They

will give the therapist exactly what s/he wants if they think it will prolong the therapeutic relationship.

Thanks for your informative web site. I would like to discuss other pseudoscientific "diagnoses" that abound in the mental health field. If you are interested, please feel to e-mail me. Also, please do not include my name if you choose to post this letter under the "readers' comments" section. I don't want to inadvertently violate patient confidentiality.

25 May 1999

I have a very close friend who has a multiple personality disorder. Through her I have started to see this disorder a lot more frequently.

I have seen quite a bit of evidence that counters your (admittedly on the surface convincing) argument that multiple personalities are always constructed by psychotherapists.

reply: I don't claim that all cases of dissociation are caused by therapists. I claim that "multiple personality disorder" has been largely created by therapists, books, movies, etc.

For one, after knowing her for about ten months, one of my friends revealed other personalities to her lover. She has never been in psychotherapy and now, two years later, she has got to the point where her alters are somewhat spontaneously re-merging into a whole. Still without ever seeing a psychiatrist.

She did not remember the abuse but the other personalities told her lover about the abuse. There was no hypnosis, no coercion, she merely finally trusted someone enough to tell them of this. Now that I am friends with the two of them they are sharing with me the process as she reintegrates. It is very touching.

People with multiple personalities aren't insane. They are quite functional and often never go to a psychologist at all. They hide their switches as best they can. I have another friend who has multiple personalities and still denies it. I have spoken to two of them and they deny they are her but I know they are her from other evidence.

reply: You spoke to two of your friend's personalities, each of whom denied identity with your friend, but you know these personalities are her "from other evidence"? Why would you need other evidence? Can't you tell by looking at the person who it is?

Also, 'insane' is not a useful word. Being "functional" is not a sufficient condition for not being "mentally ill," i.e., having a brain or biochemical disorder that affects thoughts, feelings, and behavior.

There is a circular illogic in your theory and it is this: you don't accept evidence except from scientific sources such as a psychiatric diagnosis; yet you then say that all cases are caused by psychiatric "iatrogenic" type function.

reply: I will accept evidence from any source. I've already clarified my position on the role of therapists in the diagnosis of MPD.

*There is a reason some therapists see tons of MPD and others see none: the ones who see none don't believe in it. How many cases of a disease you don't believe exists will you see? *grin**

reply: Yes, that much is obvious.

I do believe that it is possible to induce MPD through hypnosis. Also to insert memories artificially. For this reason you are right about the cases you cite more than likely. That doesn't preclude the existence of real cases however. In fact, the fact it can be induced means it probably occurs naturally as well.

reply: What is the evidence that hypnosis alone has ever induced a single case of MPD? The process of suggesting memories is altogether different. As for the relationship between being induced and occurring naturally, I would say that at least something like MPD occurs naturally, and that it is not a mental disorder requiring psychiatric treatment. Some day we will learn to think of psychiatric disorders as matters of degree.

Your friend's developing symptoms of MPD without seeing a therapist is not unusual. After the movie *Sybil* was aired there was a dramatic increase in MPD cases. This wasn't because therapists saw the movie, read the book, etc., and then started seeing MPD in every patient. No, the patients assimilated the symptoms. I wonder if your friend took a psychology class where MPD was discussed, read a book or saw a film on MPD, and then started to show her symptoms. Maybe she has been playing a role. No doubt it got her lots of attention, and perhaps that is what she craved. Maybe she is tiring of the role she's been playing. Who knows? But you misread the entry on MPD if you think I claim that every case of MPD has been induced by therapists.

I sincerely hope my friend was not a case of induced. However I don't know any way to tell. She is who she is now and I deal with that as best I can. No matter who inflicted the trauma though, it is just as real.

Dana Anthony

reply: You are right, even if the trauma is self-inflicted and delusional.



reader comments:

Myers-Briggs Type Indicator®

note: I'm not accepting any more comments on the MBTI®. The comments below and on the other two pages linked to this page were made before major revisions of the entry in January 2001. Nevertheless, I'm still not accepting any more comments on this or any other kind of personality typology instrument.

07 Nov 2000

(The program described below seems worthy of MBTI®)

The lack of any critical examination of the program is interesting.

The Wall Street Journal Workers Wear Feelings On Their Hard Hats And Show True Colors --- On Oil Rigs and Assembly Lines, Sensitivity Training Pays Off; Blue-Yellow Meets Red-Green By Chip Cummins

11/07/2000 The Wall Street Journal Page A1 (Copyright (c) 2000, Dow Jones & Company, Inc.) NEW ORLEANS -- Jimmy Nobles has worked on offshore oil rigs for 25 years and still vividly remembers how cramped living conditions and tyrannical bosses used to fray nerves. The result: shouting matches and even the occasional fight.

Not anymore, at least on Transocean Sedco Forex rigs, says Mr. Nobles, a burly 50-year-old dressed in blue company coveralls at a Transocean training session here. "It's a different deal," he says, spitting tobacco juice into an empty Coke can. "We care about other people's feelings."

Indeed, roustabouts, never known for wearing their emotions on their sleeves, are being asked to wear them on stickers on their hard hats. The stickers have the words, "START TO UNDERSTAND ME," and next to that, two colored dots, which are supposed to tell co-workers about the personality under the hat.

For instance, "yellows and blues are touchy. They like to touch and hug, no problem. Greens don't like that," explains Mr. Nobles, who now teaches "well-control" classes at a company technical school. He's a combination red-yellow and says it fits. "Reds are driven," but his yellow side shows up in his fondness for people, he explains, slapping a visitor on the back.

Businesses have long used sensitivity training and popular psychology to help employees and managers work together. With the help of a Minneapolis

company called Inscape Publishing, some are taking the effort to a new level, labeling workers with colors or letters in the name of team-building and getting along.

Assembly-line workers in Kentucky, police officers in Kansas, electricians in Texas and construction crews in Florida have all been assigned letters as a way to assess their styles and their colleagues' behavior. Carpenters and plumbers in New York City use the same system. Inscape, a closely held company, sells the training as \$15 "personal profile" tests through about 5,000 distributors. The program draws on work published by Harvard-trained psychologist William Moulton Marston. His 1928 tome, "Emotions of Normal People," begins: "Are you a `normal person?' Probably, for the most part, you are. Doubtless, however, you have occasional misgivings." Dr. Marston is better known in psychology circles, however, for his unscrupulous promotion of an early lie detector during the Lindbergh kidnapping trial. He and his machine appeared in magazine ads for razors, and he advocated the use of lie detectors in marriage counseling. Later in life, he created the comic-book heroine Wonder Woman.

Based on 28 multiple-choice questions, a person going through Inscape's "DISC" training is assigned a letter -- D for dominance, I for influence, S for steadiness or C for conscientiousness -- that best describes his personality.

Tommy Curtiss, a project manager at S&J Electric in Fort Worth, Texas, says he is a hard-charging D, something akin to a Transocean red. After going through training with his workers, he says, he now understands that a co-worker who is a C (the green sticker on Transocean rigs) needs clear organization. "I can see how his little world is set up," says Mr. Curtiss, amid a tangle of electric cable and cement molds. S&J workers don't wear their letters after their training, but groups are small, and everybody seems to remember who's what.

Gordon Culley, a carpenter-on-call for Installinc, a New York City online service that sends tradesmen out on jobs, is a C. He says the most useful part of the training wasn't understanding himself, but figuring out how to treat everyone else. If he comes across a customer who's a talkative I, for instance, "I will explain the world."

Transocean, the offshore driller, has taken the training a step further, using colors instead of letters. It says it started the training a few years ago to help middle managers communicate better. Now it's standard for the company's 8,300 workers world-wide. The company says it helps people get along better, especially in the stressful and sometimes-dangerous environment of an offshore oil rig. It's also providing a little glue to a company still figuring out how to integrate corporate cultures after a string of acquisitions, says Lewis Senior, Transocean's manager for health, safety and the environment. "We're trying to get into people's minds and hearts," he says. Mr. Senior's booming voice still

carries the lilt of his native Yorkshire, England, despite 27 years on offshore rigs. He helped design Transocean's colors training, borrowing liberally from DISC, popular psychology and business self-help books. In the no-frills conference room of a New Orleans Best Western hotel, he addresses a class of 45: "Every single thing you do is a reflection of your colors."

To start off the day's session, he asks the group to draw a few pictures, including the sun, a snake and a house. "The more windows you have, the more open you are," Mr. Senior tells the group after they've put down their pencils. Then, another test. Presented with 28 sets of four words, each worker picks a word that describes him best and a word that describes him least. A typical set: fussy, obedient, firm, playful. The test takers are told how to score themselves and come up with their two colors. Rig workers wear their dots on their hats, while landlubbers post theirs outside their office doors.

While no one is forced to display his colors, Mr. Senior contends that "people who don't buy into it" walk away. Some question whether the program is an intrusion. Says Tim Callais, a Transocean adviser for operational safety: "They're probably blue people." "Behavioral Styles" charts are posted on the gray bulkheads of many of Transocean's rigs, explaining that people with blue in them dislike change and can be a little wishy-washy. Yellows are emotional and talkative. Greens are cautious and serious, while reds tend to be strong-willed and decisive. Thom Keeton, a red-green rig manager, keeps a color chart under the glass covering his desk for quick reference. If a crew member was "a blue-yellow, he wouldn't come to the point," the 46-year-old Alabama native says. "He'd say, 'Hey, have you been fishing? Oh, by the way, No. 6 engine has just slung a rod.'"

Tom Watkins, a tool pusher and a senior hand on the Discoverer Spirit, Transocean's latest drill ship, is also a red-green. Blunt and to the point, he doesn't like to talk much. "No granola here," he says, hurrying back to finish supervising a job. On the Spirit's mess decks, 27-year-old David Gray, a blue-yellow, chats more freely. He's a little more laid-back, he says, but he can deal with those high-strung red-greens now that he has figured out that he just has to get to the point more quickly. J. Michael Talbert, the company's chief executive officer, declines to divulge his own colors, saying that as CEO he has to be a bit of a chameleon. "I can be whatever color I want to be," he says. Not so, says Mr. Senior, the Transocean instructor, who confides, "He's actually a green-blue." That might describe a guy who is organized and reserved, according to Transocean's color charts.

After announcing Transocean's latest merger a few months ago, Mr. Talbert has been acting more like one of those competitive reds, Mr. Senior explains. But, he adds, "Once the merger stuff settles down, he'll go back to green and blue."

Gerald Trigo

22 Feb 2000

Skipping the typical compliments on your great site and getting right to the point, I have a few things to say regarding your entry on Myers-Briggs™.

Suppose I designed a simple, single-question test in which I asked people whether they preferred apples or oranges, then categorized people according to their answer as "apple-preferring" types or "orange-preferring" types. You could argue that these categorizations are worthless, and that they could be used to unfairly discriminate against those whose type differed from that of (say) their manager, and that they might discourage people from expanding their gastronomic repertoire, and that they don't account for people who dislike, are allergic to, or have not tried both fruits, and that they don't account for the fact that some people's preference changes with their mood, and that some people might like both fruits equally well. But to say that the categorizations are universally false because many apple-preferring types also enjoy oranges (and vice-versa) would be to so misconstrue the categorizations that it looks like bias. If your purpose is to discredit the test in an effort to reduce discrimination and encourage greater dietary variety, insisting that the types as defined by the test do not exist at all detracts, however slightly, from your otherwise substantial credibility.

In the same vein as my simple fruit test, Myers-Briggs™ simply asks about preferences and then tells people what their preferences are. Whatever its merits, worthlessness, or dangers, accusing the Myer's-Briggs™ categories of being as random as (say) your comparison to astrology is absurd.

My experience with Myers-Briggs™ is limited to a book I read many years ago called "Please Understand Me", and so I may have an incorrect understanding of it in many ways, and as that book had no particular emphasis that I recall on career choices or job performance I may have been naive about its Orwellian implications. But constrained as I am by my relative ignorance (insert one of your snide remarks here), I have some points to make:

>> MBTI™ assumes that each of us is fundamentally and profoundly oriented towards the inner world or the outer world. <<

No it doesn't. It places each of us on a continuum. Some of us at one extreme end are profoundly oriented toward the inner world; others at the other extreme end are profoundly oriented toward the outer world. Others fall at various points in-between; some right in the middle. Perhaps it's a bell curve, so the number of people at the extreme ends would be few compared to the number of people toward the middle. The number of possible in-between points depends only on the number of questions asked; with a sufficient number of questions, we might find as many in-between points as there are people who take the test. Those who fall approximately in the middle cannot be said to be "fundamentally and profoundly" oriented toward either the inner world or the outer world. That

said, I have no doubt that there are individuals who oversimplify in this way, but to the extent that they do so, they misrepresent Myers-Briggs™.

*>> it assumes that only those who are not sticklers for following the evidence of the senses are imaginative enough to see beyond what is to what could be.
<<*

Nonsense, for two reasons:

1) It's a test of preferences, not abilities. A preference for the senses does not require an inability to use the imagination. And vice-versa. That said, a strong preference for one is likely to lead to more frequent and enthusiastic use of it, and that in turn is likely to lead to greater skill in that area.

2) Again, it places everyone on a continuum. Some people are at the extreme ends of the continuum, but others are at various places in-between.

>> there are those who go against the evidence of their senses not because they are imaginative or creative, but because they are stupid or demented. <<

The absence of stupidity/intelligence and demented/sane axes is not in itself evidence against the validity of the axes for which it does test -- only a reminder of their limitation.

*>> However, MBTI does not mean by "feeling" what the rest of us mean by it.
<<*

This gem comes after a long-winded diatribe about the inadequacy of the thinking/feeling axis, which is as much as to admit you merely set up a straw man to tear down. It seems your only real point here is that they should have used a different word than "feeling".

>> Reading these profiles is like reading something from Omar the astrologer Psychological tests such as the Myers-Briggs Type Indicator are little more than parlor games. They will be validated by their seemingly good fit with the data, in the same way that astrologers and biorhythmists find predictive patterns fitting their readings and charts, i.e., by confirmation bias and the ambiguity of basic terms. <<

Hardly anyone would fit one profile exactly; that would require being at one extreme end or the other of each of the four axes. Most people fall somewhere in-between on all of or most of the axes, thus will not be a perfect fit with any one profile. A person who was heavily weighted one way or the other on all four axes would likely fit one profile more than any of the others -- not because of any voodoo, but simply because the profile was a reflection of their answers on the test. Rather than pay a lot of attention to the 16 prefabricated profiles, what would be more useful for most people is to read about the 4 axes and

derive a custom profile based on how far from the middle they were on each axis.

>> even if it is true that there are 16 basic personality types, what good is this information? <<

Gaining insight into the range of how others think and what motivates them, which can lead to more harmonious interaction with others.

None of which is to say that Myers-Briggs™ is scientific or worthwhile. I thought it lent some useful insight into understanding how other people think, but I was a teenager at the time and perhaps I would have gained similar insight since then without the help of Myers-Briggs™. Also, though I have found it enjoyable and worthwhile to discuss with friends, that of course is just another testimonial, thus meaningless in this context.

I think one way that Myers-Briggs™ is often misused is that people who are not very far toward the extremes read themselves in the profiles as if they were at the extremes, cubby-holing themselves into one of the 16 types when in fact they are only an approximate fit for that type.

Oh -- almost forgot: I'm an INXJ. Now you have one more piece of useless information.

Greg Lovern

reply: I think you've provided us with more than one bit of useless information. I will only say that I have not denied nor do I intend to deny now that many people find the MB typology useful for understanding others. I have not denied nor do I intend to deny now that many people find the MB typology useful for understanding themselves. I also do not intend to alter anything I have written about Myers-Briggs™.

18 Feb 2000

I took the Myers-Briggs™ test several years ago, and my INTP type is something I'll always remember. It's been very useful in self-understanding. I often recall my perceiving nature because I take many things into account, but I have trouble making decisions. Much more so than most people.

The other letters were accurate, as well. It is nice to look at certain personal behavior and then look back and say, "Well, that's because I'm introverted," or "That's because I'm a strong thinker." Actually, I'm quite proud of my type; I'd rather be thinking than feeling, and I think that a perceiver (as I understand the word) makes a better freethinker than a judger.

The personality profiles are not like astrological readings because the former

are based on your actual personality data that you provide. I can see how you could think they are similar; after all, my personality profile isn't 100% accurate, and I see bits of myself in other profiles. But that's because nobody fits completely into one of the 16 boxes. But overall, it's accurate. One of your readers reproduced part of an INTP profile, and it was so me, especially the part about INTPs being dateless and not knowing how to flirt. I do enjoy parties, which INTPs are not supposed to do; however, I enjoy them for two reasons: 1)I've become more extroverted over the years, and 2)Most parties I go to are sponsored by my campus freethought group, so I'm with people like myself who enjoy intelligent talk and philosophical discussions.

I agree that using Myers-Briggs™ in hiring practices is a bad idea. However, it's useful for most people on a personal level. By just remembering my four letters, I always have a simple guide for understand aspects of my personality.

John Franson

30 Jul 1999

I believe your article on the Myers-Briggs™ theory was written in 1996, however I just read it today. I think it helped me more than all the reading I've done trying to identify my "type."

I realize you are busy, but I just wanted to say how frustrated I was trying to fit myself into one of the 16 boxes. I seem to fit well into three of them! This is about the third time I have gone through the rounds of taking the tests and reading all the material I could find. I suppose it has to do with the desire to find the "perfect" job that will make me happy forever.

I agree with you especially, that the factors are not mutually exclusive. I feel, for example, that I am very intuitive and "sensitive." However, I am also a great thinker and love to analyze things. (Hence obsessing about the test). I laughed when one person giving feedback to your article assumed you were "a picky eater who missed appointments..." etc.

Anyway, thanks for your article. I am a skeptic who can't accept my own skepticism.

Ronnie Ellen Levine

07 Jan 1999

I greatly appreciate your Skeptic's Dictionary site. Regarding MBTI®, I have to agree with your assessment and criticisms. I have taken the test in the past and tested out as an ISTJ. At the time, the description given to me seemed to hit the nail on the head - I read every line and said "That's me."

Of course now looking at that I see certain things that do not fit. For example, an ISTJ is supposed to be orderly and an organizer. One look at my apartment or my desk at work will exclude me. Although my car is immaculate. Maybe I'm an ISTJ only in my car? After reading the various comments from other readers, it sounds like I must be an INTP. To quote from the letters, "INTP people are often uncomfortable around large groups of people, don't understand or know how to flirt, and are often "dateless". They tend to have only a couple good friends. INTP's are not "party goers"." Of course, some INFP things fit as well, but I suppose one would argue they would be similar.

However, it is also stated by another proponent, "Introverts speak before they think while Extroverts need to speak their ideas and bounce them off others. In a class discussion setting, the Extrovert always has the advantage while the Introverts are unable to speak "quickly enough"." Well, by that definition, I'm the most Extroverted person you've ever met. Kinda throws a monkey wrench into that diagnosis, huh?

One comment did strike a chord. "[P]ersonally I found it a bit relieving to know that I am not quite as peculiar as I sometimes think (And trust me, if you are a very introverted NF (or NT), you will probably have spent a fair amount of your life as the weird one who doesn't quite fit in)." I can certainly agree that as one who always felt weird, there is comfort in being categorized, because it makes you feel more normal to think that you have a category. The fact that someone can explain you and group you with others means you are not so strange - and most people are comforted to find out they are "normal".

I appreciate the distinction that is made on the terms used for classification not corresponding to their common lay meanings. Reminds me of the definition of the word theory. But overall the positive influences of MBTI® seem to be outweighed by the negative outcomes. I agree with your comments about how using the types gets in the way of really learning what a person is like.

Keith Irish

22 Sep 1998

I was interested in your comments on the Myers-Briggs Type Indicator® analysis. The team in which I work recently went through a MBTI® session presumably as a team-building exercise. It was actually a lot of fun and confirmed some previously held beliefs about the way some team members think (though we were all pretty well acquainted beforehand).

Judging by the general hilarity of the participants, I don't think any of us took it too seriously. But it was presented by a "qualified" facilitator as a serious psychological tool, with many years of verification and recognition by the professional psychological fraternity (though no specific references to the verification were provided).

I had actually done the test (and other similar tests) many years before, and it yielded exactly the same result. I guess this is not surprising, since my prejudices and preferences would not have changed significantly. It was this consistency that was claimed as evidence of the test's validity.

While I have no vested interest or desire to defend or debunk the MBTI® process, I would like to look a little deeper into your comment "The Myers-Briggs Type Indicator begins with the assumption that there are four basic categories by which people should be classified."

My interpretation of the four by four matrix is not that it is an assumption about the basic construction of the population, but simply a reflection of the structure of the test. The process can only resolve the population into 16 categories because that's all it attempts to do. If it attempted any deeper analysis, it would get very complicated indeed.

It's a bit like those images on TV where the identity of a person is disguised by overlaying a coarse pixel image of their face. It's not an assumption of how a human face is constructed, it's just a bunch of coloured squares which represents the original image as best it can. For a recognisable image you need a finer grained picture, but that doesn't mean the coarse picture is "wrong", it simply doesn't provide enough data. I agree that as an employment selection tool, a Myers-Briggs Type® Classification is at best useless, and at worst open to prejudicial assessment.

I did however find it useful in gaining some insight into the preferences and practices of my workmates. We talked amicably about such things as what people find annoying, or what pleases them. This all helped us get to know each other a little better, and become a little more tolerant of each other's idiosyncrasies. As a structured forum for discussion, it was probably as good as any other device.

It seems that most people feel more comfortable when they can put themselves and other people into little labeled boxes. If the MBTI® process provides a relatively independent and non-threatening method of doing so, then perhaps it is better than leaving us all to our own haphazard judgements, prejudices and jealousies.

Cam Douglas

[more reader comments](#)



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reader comments:

natural

10 Jan 1998

*I am really enjoying the **Skeptic's Refuge** and plan to spend a lot of time at this site. Cheers to you! I wonder if you are a scientific pantheist, as I am?*

reply: *From what I can tell about scientific naturalism from [Paul Harrison's](#) site, I would have to say that I do not have the emotional constitution to be a scientific pantheist.*

I just read the new entry entitled "natural," which I enjoyed. Just because something is natural doesn't mean it's good. Since you have given some thought to nature and what is natural, I wonder if you could help me get my mind out of this hamster wheel.

Beaver's are natural. Dams which beavers build are natural. Man is natural. Strip malls which men build are what? Natural or unnatural?

I don't believe strip malls are "natural" but I can't seem to clarify my admittedly muddy thinking on this. I thought maybe you could help.

Laura

reply: What you ask is the kind of question certain philosophers have been asking for eons. Remember Bishop Berkeley and the question as to whether a tree falling the forest makes a sound when no one is around? Or William James and the question as to whether people walking around a tree several times on which a squirrel was walking, passed the squirrel even though the squirrel always moved around the tree ahead of them? The answer to yours and these questions has the same form, namely: "It all depends on what you mean by *x*". If by 'natural' you mean *an object not designed but occurring as a result of instinct*, then the beaver dam is natural but the strip mall is not. If you mean by 'natural' you mean *present in nature*, then everything is natural, including the strip mall.

09 Jan 1998

Just a quick note about St. John's Wort. While hypericin is a MAOI, it is relatively mild and reversible, which means that the side effects (hypertensive crisis) possible from tyramine in older, irreversible MAOIs is not present. Also, as with other "herbal remedies", the action is supposed to come from

more than one active principle. Sometimes it works, sometimes it's placebo. In any case, St. John's Wort appears to be effective in mild depressions. Of course, placebos help 1/3 of severely depressed individuals too.

Kevin Smith

I don't know where you are getting your information about placebos and the severely depressed, but it does not jibe with any scientific study I am aware of. You may be thinking of studies which have shown that for certain kinds of physical complaints, placebos are effective more than 30% of the time. Severe depression is a *physical* illness, but it is not one of those for which placebos show any effectiveness at all. You might want to read some of the following:

- **["Erasing the Line Between Mental and Physical Ills,"](#) by Julie Marquis . *Los Angeles Times*, October 15, 1996**
- **[An Unquiet Mind, A Memoir of Moods and Madness.](#) Kay Redfield Jamison, PhD.**
- **[Questions & Answers About Depression and Its Treatment, A Consultation with a Leading Psychiatrist.](#) Ivan K. Goldberg, MD. Dr. Goldberg has his own WWW site called [Depression Central](#).**
- **[Overcoming Depression.](#) Demitri Papolos, MD, and Janice Papolos.**
- **[The Good News About Depression : Cures and Treatments in the New Age of Psychiatry](#) by Mark S. Gold.**

and

- **"Anatomy of Melancholy," by Andrew Solomon, *The New Yorker*, Jan. 12, 1998.**

Now, regarding St. John's Wort and its potency and side-effects: The point I wanted to make is that if St. John's Wort or any other "natural" product is good medicine, it is not because it is natural but because of its chemical constitution. St. John's Wort, like any medication, comes in different strengths which can be indefinitely increased simply by taking more of the substance. To assume that because something is natural, it will have only mild or no adverse side-effects, is wrong. Each particular substance and the quantity taken must be evaluated. Furthermore, there are some known [side-effects of hypericin](#) which you do not mention, for example, "photosensitivity characterized by dermatitis of the skin and inflammation of the mucous membranes on exposure to direct sunlight." This may not be a problem for most humans, if they do not take an

excessive dose. Right now, we do not know what amount of hypericin that would be.

St. John's Wort seems to have strong empirical support for its use to treat mild depression, but so does cognitive therapy, which may not be natural, but it is often done without the patient needing to take *any* medications, natural or synthetic. People who say they take St. John's Wort because they don't want to take any medications are confused. St. John's Wort is a medication, even if it is sold as a food supplement in your local grocery store.

11 Jan 1998

To me, the word "unnatural" is meaningless. If something exists, then it is a part of nature, and therefore natural. Often, people contrast "natural" with "artificial" or "manmade." These things could only be "unnatural" if we concluded that human beings somehow exist outside of nature, which is ludicrous. Are bird nests unnatural? Ant hills? Beaver dams? Why are we so special that everything we do is "unnatural?" I agree that humans do a lot of stupid things, and can be a danger to ecology. But we need actual ethical reasons for doing or not doing something, not claims that it is "unnatural," which is simply untrue.

Greg Jensen

reply: The words 'natural' and 'unnatural' have several cognitive meanings. The context will usually make it clear which meaning is intended, but occasional ambiguity is inevitable. On the other hand, the emotive meanings of these terms is rarely unclear. 'Natural' usually has a positive emotive meaning and is usually intended to express and evoke approval. 'Unnatural' usually has a negative emotive meaning and is usually intended to express and evoke disapproval. Lazy thinkers will simply dub something 'unnatural' and erroneously think they have shown it is morally wrong. Or, they will dub something 'natural' and erroneously think they have shown it is morally good.



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experiences](#)

reader comments:

near-death experiences

4 Oct 2001

Hi, I'm a television series producer in Australia who had an NDE 3 years ago. Just wanted to say thank you for your intelligent explanations - I'm really trying to understand my experience and why it's had such a profound effect on my entire life - I'll continue my enquiries for many years, no doubt, but your info has been a refreshing, factual insight. Thanks and best wishes,

Helen Parker

3 Feb 2001

Just read an account of a woman who had been electrocuted and had a NDE. She left her body and observed her physical body on the floor after the incident. While out of the body she felt no pain, emotional or physical, but viewed the incident dispassionately. The part that left her body had two parts that she explains as follows:

- 1. Spirit consciousness, which she felt was herself.*
- 2. A transparent body which she felt was the casing for the spirit consciousness. When out of the physical body the casing for the consciousness was a transparent body much like the physical body in appearance, except it had no defects; did not breathe, and communicated by telepathy with other Light Beings.*

While out of the physical body she observed that all things vibrate with consciousness, even rocks, cloth... all things.

She also left her transparent body at that time. She explains that she felt her pure consciousness merge with the Cosmic Consciousness. She became One with that larger consciousness. During that time she explains that she retained her sense of consciousness, was still herself, but was also One with all things. She experienced unconditional love, peace, bliss, joy ... during that merging.

This is from the book; You Can See the Light by Dianne Morrissey Ph.D.

I had a similar experience but it was an OBE after years of practicing Yoga. I

did not die or have an NDE but had the same experience as an NDE. It was the most important and truthful experience of my entire life. It changed my entire life perspective. Had I not had this experience, I too would remain a skeptic.

Respectfully,

Carol C.

reply: If a picture is worth a thousand words, a transcendental experience is worth a library. Unfortunately, both pictures and experiences can be deceptive. While there are some unscrupulous people who are faking communication with the dead, many have had experiences such as yours. Such experiences can be life-transforming, as in your case, and they can easily become the foundation of an unshakeable faith in all kinds of supernatural and occult phenomena.

Yet, some people will be able to recognize that what they experience may be no more than a subjective experience caused by oxygen deprivation, chemical imbalance, neurological disorder, or some other kind of brain process. That doesn't make the experience less real, but it does explain how one can have experiences that have *content* based on past experiences and desires, but which have no immediate basis outside of the brain.

Ultimately, a person of faith such as yourself might well choose not to apply [Occam's razor](#), yet be willing to admit that it is a brain process that is causing their immediate perceptions. However, rather than leave it at that, the person of faith assumes that there is a real (external to the brain) cause of the brain processes that are causing the perceptions. Such an external cause is metaphysically possible, of course, but unnecessary and, I believe, unlikely. People of faith find books like *You Can See the Light* and [Hello from Heaven!](#) to be supportive of their view. I find books by [Oliver Sacks](#), [Michael Persinger](#), [Stanislav Grof](#) and [Susan Blackmore](#) more interesting and more convincing. Neurological research seems to keep finding evidence to support the brain-based hypothesis for both the origin of God and the self, e.g., [Why God Won't Go Away: Brain Science and the Biology of Belief](#), [Altered Egos: How the Brain Creates the Self](#) and the recent work of [Dr. Donald Stuss](#) on the [frontal lobes and our sense of self](#). It is, of course, possible that there is another realm of reality beyond the brain which is somehow causing these perceptions of self, spirits and God. However, the likelihood of such a realm actually existing seems to me about as probable as [James van Praagh](#) or [John Edward](#) really being contacted by dead dogs and dead strangers.

28 May 2000

I've never been one to draw within the lines, so I'm going to forego the neatly arranged form letter arrangement you've included and instead write freely.

I would, however, like to commend you for an interesting and well-organized site; so hard it is these days to find intelligent discussions of contemporary philosophy and scientific ideas.

I have read through your section on NDE's and some of the reader comments. The most glaring problem inherent in understanding the true nature of these phenomena is the fact that, as we progress down to a certain level of understanding, we get to an area where there really is no way to empirically prove what we are claiming. Scientists rely (necessarily) on facts and data, and will accept nothing else in their search for truth. Interestingly enough, the very roots of science stem from phenomena so minute and mysterious that they themselves cannot be understood or proven empirically. For this reason, we must always entertain alternative ideas, no matter how bizarre, until we can completely explain them.

A very simple dualist approach can explain NDE's and even incorporate the scientific research of ketamine and oxygen deprivation and the whole nine yards.

If we grant that consciousness may have a role in actually creating our reality (as the field of quantum physics is currently finding) then it is easy to see that the consciousness lies somewhere outside of the physical body. It would, however, have to maintain a very intimate relationship with the body, and do so using "material" principles, such as those of biology, chemistry and physics.

It is possible that, on the border of material reality and immaterial reality, there lie chemical reactions, biological responses and the changing of energy into particles. Obviously we do not understand what happens in the small scale of particle generation, but we do understand how chemistry works. When we experience something as the result of ketamine overdose, haven't we just added a chemical to an environment which responds to and works with - chemicals?

It seems obvious that any kind of spiritual experience a human has will be associated to some degree with his or her body and that will entail some kind of chemical reaction. The fact that certain aspects of a spiritual experience can be reproduced chemically proves absolutely nothing about the nature of these phenomena.

-Sean P Hulsman (I wish I had some credentials to put here. It would make me look so much smarter.)

reply: Even though we can't prove--at least not in the way mathematicians can prove--any metaphysical claims, and even though it is true that reproducing spiritual experiences chemically does not prove that spiritual experiences are nothing but chemical reactions, we should not shrink from making judgments based on reasonable probabilities.

14 Mar 2000

Dear Mr. Carroll,

Thank God for your site!

(That's a joke.)

I've been using excerpts from your site (and accompanying links) on an NDE Mail List to clear the air of everything from the Shroud, to Atlantis, to Edgar Cayce and Astrology! (Unfortunately, air pollution is a stubborn affliction.) What the heck am I doing on an NDE mail list?

I had a Near Death-like Experience when I was eleven years old. I won't bore you with the details, but the most intriguing aspect was that I willed myself to "die" during a dream. A full blown NDE followed, in which I would assert that I was no longer dreaming, but fully conscious and OBE. I think this is intriguing from a scientific and psychological standpoint, because, as you know, some avenues of exploration have tried to pinpoint the NDE on a dying brain (to put it simply). My own case argues that possibly just the "perception" of dying can produce an NDE! So, if we are to find a neurological cause for the NDE (to which I am open) then I would argue that "brain-death" is not a reliable trigger.

*I am often asked what makes me think I wasn't still dreaming. Of course, I have no proof that I wasn't. I usually offer up an analogy. Imagine you wake in the middle of the night. You do nothing that would indicate to anyone else that you were awake. Perhaps you look out the window, perhaps you stare at the ceiling or maybe check the time. Then you go back to sleep. The next day you tell someone that you woke during the night. If someone were then to ask: But how do you **know** you weren't still dreaming, how would you prove that you were awake? This analogy gets to the heart of defining consciousness. How did we know we were awake and not dreaming? At any rate, I can't prove that I wasn't dreaming, but I **can** assert that I **felt** fully conscious (and out of my body). Having had lucid dreams, I would also assert that the NDE **felt** qualitatively different. But this is all subjective.*

One fascinating aspect of the NDE, was my ability (perceived?) to see 380 [?] degrees at once.

So, when Jansen writes: One of the many contradictions which 'after-lifers' can not resolve is that "the spirit rises out of the body leaving the brain behind, but somehow still incorporating neuronal functions such as sight, hearing, and proprioception"

*I can only agree. Whatever means I was using to see was *not* eyesight. This can firstly be seen as proof (by present scientific criterion) that I was dreaming (the reasonable assumption being that the only way to "see" is with eyes, therefore, if I was seeing it was because I was dreaming) or secondly, as confirmation that our consciousness is not dependent on neuronal activity (I was seeing without my eyes and since eyes cannot possibly see in all directions at once, the only explanation (if we preclude the first) is that I was using a perceptual ability that was *not* neuronal--therefore it follows that consciousness may not be neuronal). This all begins to sound sophisticated, but I think we can't, as yet, eliminate either possibility.*

Jansen also writes: There is overwhelming evidence that 'mind' results from neuronal activity. The dramatic effects on the mind of adding hallucinogenic drugs to the brain, and the religious experiences which sometimes result, provide further evidence for this (Grinspoon and Bakalar, 1981).

*If we exclude the possibility of a "soul", then this is the obvious conclusion. After all, if we remove the brain, we remove consciousness. Period. We conclude therefore that consciousness *is* the brain. However, my favorite hobby is flying radio controlled planes. This leads to an analogy I'm sure you're familiar with. If one thinks of the brain as being a servo (the mechanism that controls the plane) then we end up with exactly the same indicators. The plane appears conscious and aware of its environment. It avoids trees (most of the time), the ground and generally behaves like a thinking object interested in preserving itself. It seems to see and be aware of its environment. Military radio controlled planes even extend this analogy, because they have on-board cameras that guide the controller. These could be thought of as eyes. If the servo were susceptible to mental illness, then, depending on the illness, ones ability to control the plane would suffer accordingly. If the battery dies (which has happened) then the servo dies and the plane plummets, having the appearance of "death". Not to sound too metaphysical, but we can safely say that the plane's appearance of consciousness and apparent "death" are illusions. The plane's consciousness, if you will, exists externally to it. If one postulates the existence of the soul, then this analogy extends to the body. Of course, such a hypothesis (if it can be called that) can in *no way* be validated. I only mention it to show that what can appear purely neuronal, need not necessarily lead us to conclude that consciousness is neuronal.*

*The objection is fairly raised that science cannot disprove a negative. However, science *can* disprove that the earth is flat, that the sun revolves around the earth... so on and so forth. So... I'm not sure we can use this reasoning as a refuge. If it's possible to prove that consciousness does *not**

*and can *not* exist beyond the confines of the body, then I think it will, at some point, be proven. Until then, I remain open.*

*I experienced my NDE at age eleven and I told no one of the experience until eighteen (so profound was the effect it had on me). If we grant the NDE a neurological explanation (which is the only explanation we can allow given the current scientific paradigm) then the reasons for its *often* (though not always) beneficial after effects becomes doubly intriguing. After all, the NDE may be drug induced. However, I don't get the sense from my readings that a drug induced NDE produces the same beneficial after effects. (Maybe I haven't read enough?) Carl Jansen's web site (Ketamine induced NDEs) lists some of these beneficial after effects and gives examples; although, unfortunately, he doesn't state whether his own experiments produce the same after effects as the non-induced variety. This has nothing to do with the nature of consciousness. I only point out that there may be qualitative differences between an induced NDE and a non-induced NDE which need to be explored.*

Anyway, after my NDE I naturally wanted to understand its "meaning". Of course, there were plenty pseudo-scientists more than ready and willing to explain the phenomena: astrologers, channelers, psychics, gurus, you name it. When I finally read James Randi's flim flam, it was a breath of fresh air. (Fortunately, Carl Sagan was one of my childhood heroes, so I was open to reading Randi.) This was several years ago. Now that I'm earning some money, you'll be happy to know that I'll be joining the James Randi Educational Foundation. I can't say enough about the process and methodology of science. I am a subscriber to the Skeptic and I finally managed to buy a used copy of "Asimov's Guide to Science" (now out of print) like the one I loved as a child.

*Where does all this leave me? The NDE (because of my own experience I suppose) is the *only* phenomena which continues to intrigue me as possibly indicative of the "paranormal". The nub of the matter is this: Can consciousness survive outside the confines of the physical body? Is consciousness physiological? While there is *no* reproducible evidence to suggest it can, there is nevertheless strong circumstantial evidence and what Kenneth Ring would describe as veridical evidence. It is admittedly anecdotal and testimonial; but then, as per my example of waking in the middle of the night, so is consciousness! If the soul exists, then it is pure consciousness. It is a creature of perceptions and nothing more. How on earth, using non-perceptual tools, do we come to grips with that? *If* there is a soul, I think this is a fascinating question! For now, however, it remains for the legions of pseudo scientists who are more than ready to tell us. The work of Dr. Ian Stevenson also provides strong circumstantial (though untestable) evidence. Of course, until science arrives at some means of testing such a hypothesis (that the consciousness can exist separately from the body) science cannot and should not act on the basis that it does.*

Nevertheless, I'm not sure that this alone is a reason to out and out eliminate

*the possibility. After all, microscopic life was postulated before the invention of the microscope. Mind you, I'm not trying to convince you that the soul exists but I *do* think, to be fair, that we can't yet say that it *doesn't* exist, only that we currently have no means to either prove or disprove the assertion. As I said before, there does seem to be compelling circumstantial evidence that it does, and on this reason *alone* I remain open minded on the subject. What's the difference between this assertion and a belief in Santa Claus? Mainly, I suppose, that thousands, if not millions, of individuals haven't derived life changing benefits from "meeting" Santa Claus at the end of a "tunnel"! Consider Robert Baker's article. Consider Louis Farrakahn's recent conversion after his NDE!! I, for one, remain open to the possibility that consciousness can persist outside of the physical body. This seems to be the overriding "message" (if you will) of the NDE. Wish fulfillment is an obvious explanation for the common content (who wants to die, after all) but why don't we have hallucinations (if we're to call them that) of fabulous wealth or prestige? Maybe we do. If so, it would be interesting to discover whether such experiences also produce the beneficial after-effects of the NDE.*

*Of course, allowing for the possibility that consciousness survives the physical body opens a *real* can of worms! What then about reincarnation, heaven or hell? I don't know. I personally don't believe *anybody* who claims any knowledge as to what comes after death (if there *is* such a thing as "after death").*

*By the way, I think you ought to update your NDE page to take into account Kenneth Ring's latest book: "[Mindsight: Near Death and Out-of-Body Experiences in the Blind](#)". This is a new study apparently having nothing to do with Blackmore's(?), which was (as Ring himself states) a model of poor research and fabrication. I've ordered the book via Amazon.com and haven't read it yet. If you're interested, I can send you my impressions. I would like to read some reviews--pro and con. I would appreciate your criticism of the book. The most important criticism, however, must come from those who have the means to thoroughly examine Ring's methods. Naturally, I don't expect the book to prove the existence of a "soul", but it may offer some *very* compelling "indications" in support of such an assertion. Given the subjective and anecdotal nature of the NDE, I think Ring does the best he can trying to work within a scientific paradigm. I feel the same for Stevenson. I honestly don't believe he should be ranked as just another pseudo-scientists. Even if we ultimately find plausible explanations for his findings (not paranormal), we shouldn't fault him for the sincerity of his effort.*

I have also read "Dying to Live". Frankly (and as of yet) I find neurological explanations for the NDE phenomena to be insufficient (riddled with exceptions-my own experience being an example). Nevertheless, I remain open to physiological explanations. Jansen's work with Ketamine seems promising, and yet even this doesn't nearly account for the wide variety and

causes of NDE, as he himself states, or NDE-like experiences.

Anyway, I appreciate your having written the following as to Ketamine:

That does not prove that there is no life after death, but it does prove that an NDE is not proof of an afterlife.

*I heartily agree and I also *mostly* agree when you write:*

In any case, the so-called "typical" NDE is not typical of anything, except the tendency of parapsychologists to selectively isolate features of a wide array of experiences and fit them to a paranormal or supernatural hypothesis.

*I disagree in that I think it *is* typical of *something*. We just don't yet know *what*.*

Ultimately, I agree with Robert Baker:

All of the beings of light are in firm agreement, and they tell the dying: Stay on Earth and resist the transcendental temptation; focus on life not death; use your human powers of love and compassion in work to make this material world-the world of the here and now and the world we all inhabit-a better world, the best world it can possibly be. This is the one thing on which all of us-the believer and the skeptic-can unanimously agree. This is the true light we all should see.

I hope you've found my thoughts somewhat enjoyable.

My best to you & admiration,

Patrick Gillespie

3 Apr 2000

Thank you for the down-to-earth skeptic site. It is a joy to read.

I saw a couple of years ago an American TV program which might have explained the near death experience.

The discovery was made while training fighter pilots to cope with black-out and red-out in a centrifuge. When the blood escaped from the brain due to the centrifugal force the pilots slowly lost consciousness. Before passing out they saw a light which got closer and closer (or a light at the end of a black

tunnel).

It seems that the phenomenon is caused by the brain not getting enough oxygen.

The people noticed the similarity to NDE.

I once passed out because of physical exhaustion. After a hard work out I stood up. First I lost my hearing, then a blackness came from my peripheral vision and slowly covered the whole view, just like an old TV which is turned off, ending in a blip in the centre. The last thing I remember was touching a solid object with my fingers as a reference to keep the balance. I came back after several seconds, surprisingly still standing (I know the time because of what had happened in the gym while I was unconscious). An amazing experience. Should I call it a near faint experience?

Sasu Mattila

Melbourne, Australia (just working in Australia, I am Finnish)

16 Feb 2000

My compliments on an intriguing, well-designed site. I would like to challenge you on your NDE position, however. Several accounts of NDEs report that the person travels to another place, whether that be the next room, or another building. The person, upon being revived from a clinically dead state, can accurately describe what was transpiring at that location they traveled to, during the time they were clinically dead. If this can be verified, then it seems plausible that at least an Out of Body experience occurred, if not an NDE. I will guess that your first refutation will deal with the issue of anecdotes, and how anyone can report anything to have happened can be lying or stretching the truth. But what if we have credible witnesses to this? Comments?

Patrick H. Ashley

reply: You're right about [testimonial anecdotes](#). They are worthless as scientific evidence, but they can point us in the right direction. Experiments have been set up by parapsychologists such as [Charles Tart](#) to test whether such [remote viewing](#) can be duplicated. So far as I know they have all been unsuccessful.

Your articles are very informative. Yet I have to disagree with you on one important note. Near Death Experience. I had a heart attack in January 1990, near San Francisco. Over the years, I have not only found that millions worldwide have had an NDE, but that there were blind NDEers who were

able to describe layouts of the room they were in, the people, and the equipment, as well as colors, and verified by their doctors.

Reply: Are you saying that you believe stories which assert that persons who have been blind from birth had "visions" while near death? I could believe that a person who once had sight and was blind at the time of a near death experience was conscious of "seeing," as in a daydream or dream, things like rooms, doctors, equipment, etc., and I would have no problem believing that a person who appears unconscious or dead to others can have auditory sensations and hear what is going on around him. Nothing seems extraordinary about that.

Maybe you are thinking of Dr. Emil Mueller's advertisement in *Revitalized Signs* (Autumn 1989). He asked for accounts of NDEs from the deaf and blind. Anyway, he says he didn't receive a single report from a blind person. [Blackmore, p. 130] Or you may be thinking of Larry Dossey's *Recovering the Soul* where he reports on a patient named Sarah who had a vivid visual NDE even though she was blind from birth. Dossey has admitted that Sarah was not a real person. She was a "composite," made up to "dramatically illustrate the key features of non-local ways of knowing." Dossey admitted to Susan Blackmore that he made Sarah's story up so he could illustrate his belief "that non-local ways of gaining information bypass the senses and are ultimately independent of the brain." [Blackmore, p. 132] Other than this made-up case to support a hypothesis, you won't find any documentation of blind NDErs reporting vivid visual experiences.

I know Susan Blackmore and her views on the subject, but she can't explain to my satisfaction, how those who were blind, described what I have just mentioned. I remembered skeptics who said, "There was no such thing as ESP." Now many know from a declassified document showing that the CIA was using ESP with a 66% success rate for over 20 years. Far above the rate for 'chance.'

Reply: Maybe you should re-read *Dying to Live*. She describes fully her correspondence with Mueller and Dossey. If their own admission that they don't have a single real case of a blind person NDEr doesn't satisfy you, I don't know what would. And where did you get your information on the CIA? The CIA is about as reliable a source on this stuff as the man in the moon. In any case, there have been other widely reported stories about the CIA and how it has abandoned its program of hiring psychics, not because it had a great success rate, but because it was recognized to have been a waste of money. Sure, there were a few psychics and some CIA officers who believe in esp and who think the money was well spent. I, for one, am glad they are not wasting our tax dollars on this non-sense anymore.

I don't believe in people who can claim to leave their body at will or those who claim to be psychics. But I can believe in my own experience and that of the blind.

Aubrey

Reply: You mean you believe in your *interpretation* of your experience. You seem to be blind to alternative interpretations and seem to have a blind spot when it comes to reading Blackmore on blind NDErs.

8 Aug 1996

I wanted to relate an experience that happened to me October 30, 1994. A friend and I went for a bicycle ride. I had stopped by his house to see him off and refill my water bottle before heading home. On my way back home I was hit by a car. The woman didn't see me and turned right into me. I hit the brakes, but there was nothing I could do. I told myself to drop and roll. The next thing I know I am standing on the sidewalk with two presence's next to me, telling me to relax, that things will be okay. I looked at the car and saw a black form rolling over the car. Then I am back in my body sitting on the ground.

I missed hitting a stop sign by twelve inches and a telephone pole by twenty-four inches. The only thing that happened to me was a cut on my leg (requiring stitches) and a few bruises. I thought I must have imagined it....but the pictures are too clear. Do OBE usually feel so real? Or would this be classified as a different experience?

Betsey Kamel

reply: Glad to hear you were not seriously injured. Our student assistant was hit by a car last year and nearly died from it.

Anyway, I can't comment on the nature of OBE's from experience, since I have never had one. I can only comment on your specific experience in a general way and speculate as to what caused your perceptions..

As you know, chemicals in our brain affect perception. How they do this is still a large mystery, but we know that electrical stimulation of certain parts of the brain, which can be brought about directly or by chemicals, can cause hallucinations, i.e., vivid perceptions not caused by an external object.

A trauma, or fear of trauma, to the body stimulates the production of chemicals in the body. Among the most well known examples of this is the production of adrenaline when frightened.

I cannot say for sure what you experienced but perhaps your perceptions were based on real people trying to comfort you who were gone by the time you recovered to full consciousness. Likewise for the black form: there may have been an ocular occlusion which affected your perception of an external object. On the other hand, it is possible that what you perceived were hallucinations, brought about by the trauma of your experience.

You clearly went from a state of conscious awareness to semi- or unconsciousness and then back to a state of conscious awareness. What you perceived was probably due to your body's reaction to being hit by a car, not due to any beings from another realm who appeared just at the moment of your unfortunate crash.

09 Oct 1996

I noticed not many comments were added to a topic I thought lots of people would be talking about (astral flight etc). Here is a scientific account from a logical and non-religious thinker. I hope it puts new light on the topic or at least makes someone laugh.

After borrowing a bottle of ether from a fruit fly experiment in Biology, a friend and I decided a human should take the place of a poor defenseless fly. I inhaled a fair amount until my lower limbs became anaesthetised and perception started to lag. What happened next seemed like an out of body experience but is what I later decided was serious lag effect in the visual perception. I stood up, changed the CD then sat down again, then as I sat down I experienced all the sensations of carrying out these tasks, giving me the feeling that my body was doing them though leaving my body behind. I attribute this feeling to the the anaesthetic characteristic of the drug.

Maybe while sleeping people experience out of body hallicinations due to lag in the cortex and other parts of the brain.

Benjamin Moir
Sydney, Australia

reply: I wouldn't generalize too greatly from your experiment, but there are scientists now researching the possibility that obe's (and other "transcendental" states) are manifestations of particular brain states.

31 Jul 1998

While I respect your right to have your own beliefs I must say I find your

responses rather arrogant, especially for someone who has never had an nde. I question your qualifications to try to convince people that these experiences do not come from God. Have you ever died? Do You know what follows death...actually you cannot say what happened to these people because YOU DO NOT KNOW.

Beverly Scott

reply: I've never been manic either, yet I do not think it arrogant to offer my observations on manic behavior. The manic person perceives reality in the only way she knows how, but that does not make her evaluations of her experiences valid or correct.

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Robert Todd Carroll

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reader comments:

neurolinguistic programming (NLP)

15 Nov 2000

I've talked to many people who dislike your site merely because it isn't "right" on hypnosis and NLP. I think they want you to point out how great hypnosis can be (I have seen it do some exciting things - if not magical or mystical or unexplainable things - very easily and quickly). I'm sure that anyone who tries hypnosis and maintains a skeptical, scientific mindset about it from the start will know this - why should you bother to mention it? The point of your article is that many "hypnotherapists" believe in rubbish, and that hypnosis is nothing special or exciting in itself. I have been using self-hypnosis for years, and have hypnotised some friends and family - it is a rather boring thing. I am quite taken aback by the amount and loudness of these people who wish to attribute magical qualities to it.

And NLP. Poor, stupid NLP. I can't see how people could take offence at this article. No - it does not mention how NLP can be useful, which it can be, very mildly. But it hits the point home - hard - that NLP teaches little, that it's basically new-age pseudo-scientific self-motivational Anything-2-Everyone standard cretin fare.

Yes. I may be able to use NLP techniques to improve my self-confidence. I may be able to use it to impress people socially more. But then, the techniques are useful (and only a few of them), not NLP, not Bandler, not the "practitioners" - the evidence that some techniques are useful does not validate the seminars or the whole "science" itself. In the end though, the techniques are more interesting than useful.

A friend of mine recently asked about NLP. I hope my reply may be useful to some other people.

I started really looking into NLP a while ago - and I started off thinking it must be something REALLY COOL! But, unfortunately...

NLP IS totally bogus - it was s built by 2 men - one who has run away from NLP as it is now, and one who says things like - "I think the more you want to become more and more creative you have to not only elicit other peoples' (plural) strategies and replicate them yourself, but also modify others' strategies and have a strategy that creates new creativity strategies based on as many wonderful states as you can design for yourself."

Yes - it has useful, or interesting but impractical, "tools", or "techniques". These were taken from elsewhere - and claims were set up that NLP could :- a) Cure severe mental illness b) Cure anything mental, in fact c) Make ANYONE successful d) Find out when someone is lying 100% e) Influence people easily f) etc. etc. etc.

If it's that good - why is it not used everywhere by everyone? Why is the knowledge of NLP held by the boring, the unfamous, the unrich. Why do NLP practitioners not change the world?

Do you know what I can do with "NLP"? I can "pace and lead" - match your verbal "intensity" (swearwords, volume, speed), body language etc. to build rapport, and then slow down my speech, become more articulate etc. to "lead" you to a more calm state. Does matching these things build rapport? About as much as listening to someone and pretending to care.

I can look at someone's eyes, and depending where they move, I can tell if they're having an internal dialogue, remembering a sound or sight, creating a new sound or sight etc. It's not 100% and it's not that useful.

I can't tell if someone's lying by where their eyes move. However - some NLP practitioners can.

Can I use it to become a social force to be reckoned with, using clever tricks to subconsciously create a bond of friendship? No more than being nice to people and listening and pretending to care.

Some NLP techniques may have a small place in social interactions, in therapy, in self-motivation.

But as a stand-alone "discipline", there is little to it, except the standard new-age lies.

Thomas Taylor

8 May 2000

I thought you might be interested in the following link: <http://www.idea-seminars.com>

This guy is a magician here in Milwaukee and along with many other magicians, he has latched onto NLP as the be all and end all of magic patter and scripting. Just adding to the long list of BS and bogus claims that NLP has generated, I suppose.

Finally, thank you for the effort and maintenance you put into your site. It has been a great help to me in many areas.

Tim Catlett

reply: see the next letter.

15 May 2000

Hello, By way of a very brief introduction, I am a professional magician in Calgary, Alberta, Canada, and a member of a private magicians' Internet forum (called the Electronic Grymoire, or EG for short, hosted by Bruce Barnett). There are 700-800 serious magicians and magic hobbyists from around the world on this forum, which produces email dialogue at least 5 days a week; pending holidays or days off by the moderator (who operates it for a tiny yearly membership fee to offset expenses, from his home). I should add that this forum is a very serious effort on the part of the moderator (requires a "knowledge-based" magicians' questionnaire for entrance) - as a response to the abominable 'free public' magicians chat-lines (alt. magic. etc.) -- that are constantly being 'tainted' by non-magician outsiders and general rabble-rousers. The founder of the EG didn't think magicians should be 'talking shop' out there on a public-accessible forum, under such dismal conditions.

I hope you've survived the above introduction. Now to my reason for writing:

Recently a few magicians got into a spirited conversation on the EG over the alleged marvelous attributes of Neuro-Linguistic Programming (NLP). What brought the subject up and sustained it, was Kenton's book (for magicians) called "Wonder Words", which taught NLP "techniques of persuasion" in the performance of conjuring shows. Several enthusiastic testimonials for both NLP techniques and said book were then give over the course of a couple of weeks, by people who purchased the book and applied its principles, and by people directly involved with selling seminars [\$\$] and tapes on NLP. And a few magicians had dished out the big bucks for courses on NLP (some of them medical practitioners of one sort or another).

Prior to this discussion, I had never heard of NLP (I'm an extensive 'hard science' reader and in sympathy with Randi and the skeptic's cause). The 'damn broke' for me, when a lady with a Ph.D. in linguistics and psychology and 20 years in the field (by her admission), said that she'd never heard of NLP either, and wanted to know more about it. As an armchair skeptic myself, the very word "programming" (of the brain) raised a warning flag in my mind. So...I decided to do a little research of my own, starting (and ending) with the Internet.

I was immediately appalled by the number of web sites on NLP that literally screamed "NEW AGE" and had all manner of paranormal, metaphysical, hypnotic, and psychic-type links attached. Then I found a page that had a long anti-religious dissertation, containing the theme of how NLP was the revolution

that would replace organized religion, blah blah. I'm not in the least religious myself, but by now I had pretty-much nailed NLP as a non-scientific piece of claptrap.

The above web sites then prompted me to examine what skepticism had to say about NLP -- and that's when I discovered your essay.

Trying to be brief as possible here (it's hard, forgive me): I took the liberty of downloading your NLP essay and, since it was copyright, I didn't send it to the forum (a form of cyberspace 'publishing'), but instead, re-formatted it for simple email (editing out NOTHING). I then went on the EG and offered the essay (complete with your URL address at the end so anyone could access the original), just by having them say to me, "SEND IT." (I did this so that I could learn how many magicians would actually be interested in getting and READING the essay; just listing your web address alone on the EG would have told me nothing.).

Some 84 out of 700 magicians asked for the essay over a one-week period, and in a nutshell, this caused a small uproar of consternation among the few more vocal NLP converts on the magicians forum. One of the chaps most upset was an NLP lecturer with a set of tapes on neuro-linguistic programming; and so his vested financial interest in NLP was considerable. Others took me to task principally because the Wonder Words book worked well for them, making them better magic entertainers. A strangely myopic statement came from one requester of your essay: "I've tried the NLP techniques and since they work well for ME, nothing will change my mind!" - makes me almost wonder why they asked to see your essay in the first place!

The final 'straw' in all of this, was that the NLP lecturer with the tapes (filled with frustration over the skeptical point of view, I suppose) referred to skeptics carte blanche, as those "EVANGELICAL FUNDAMENTALIST SKEPTICS", and "fanatical zealots out to destroy"...and so on. Rather than make an intelligent and reasoned attempt to address the facts, all the fellow could do was engage in an emotionalized character assassination of the skeptical cause....

IN SUMMARY: I am writing you simply to say that even in a field where you'd think there'd be mostly (if not entirely) reasonably intelligent, free-thinking, scientifically literate people (as exemplified by James Randi, Martin Gardner, et al)...there are instead, a lot of people as gullible, self-serving, and scientifically-illiterate as any typical sampling of people among the general public.

By contrast, it seems to me, the skeptics' magazine/organizations would have the general public thinking that magicians are, in the main, pretty much aligned to the sensibilities and aims of skepticism. This is something of a misconception. Curiously, though, in defense of my profession, there WERE at least a half-

dozen of the magicians (who asked for, and read your article) fully in support of your position on NLP. They KNEW it was bunk, from their own scientific training. But alas, though they were professional psychologists and/or medical practitioners of one sort or another, none would speak up on the forum. I became more-or-less a 'lone wolf' bellowing in the wilderness...

Thank you for reading this letter, and I especially thank you for writing such a great article critiquing "neuro-linguistic programming".

Larry Thornton

14 May 2000

A few months ago, I bought a book called, "Instant Rapport", which introduced me to the concept of NLP. What interested me in NLP was how people typically view the world through three of their senses, how you could tell which sense they often use through language and eye movements, and how this improves communication with others. Then I decided to search the 'Net for more info on NLP, and noticed that many sites talked about seminars and programs, but didn't go into detail unless you attended for some fee; also there were some claims of NLP that seemed too "New Agey". This immediately sent up a red flag, so I went here to find out more about the darker side of NLP. I'm glad I found out more about the whole picture of NLP before going in too far. Now my opinion on NLP is like my opinion on [Myers-Briggs](#): sure, it helps in understanding yourself and others, and communicating with other people (especially when you bring up the method as a topic), but its more grandiose claims are bunk.

Wyatt Parkinson

15 Dec 1999

I studied English Language and literature at college. I then enrolled on a correspondence course in neuroanatomy. I now work as a computer programmer and am currently implementing a neural network. I can assert that NLP has nothing to do with neuroanatomy, nothing to do with linguistics, and nothing to do with programming. I also suffer from manic depression with schizoid tendencies. The idea that NLP could treat schizophrenia is absurd. We do not understand schizophrenia (for what it's worth my pet theory is that it is not a mental disorder) but one of the effects is to inhibit the patient's sense of perspective when making logical deductions. "I am God. I know I am in a mental hospital. Therefore God must be insane ... " is a typical chain of reasoning. What we do know is that blockading dopamine receptors with specially designed drugs will inhibit the symptoms. It is a psychiatric condition not a psychological one, and it doesn't seem at all likely that a non-pharmacological therapy could possibly work.

Keep up the good work.

Malcolm Mclean

9 Dec 1999

I read your comments about NLP. There is much that you have written that is 100% on. There is a lot that you have written that is off. Way off. We tend to say that people all have different experiences. If that is so, and I believe that it is, then how can you expect one thing to be the correct thing for all. Everyone cannot say that their home address is 3285 Kinard Ave in Pensacola as I can. I could not say that was my address 50 years ago, 30 years ago, 10 years ago, and it might not be so in another 15 years. Fritz Pearls might have said that what you have written therefore is a bunch of Elephant S... because it only comes from the brain. If I want to say that I will get wet, which of the following will work? Stand in the shower-not if my shower is not connected. Go out in the rain-not if we are in the middle of a draught. Go to the beach-not if I am in the middle of a desert. Go to a restaurant and pour the water they give me over my head-not if I am in the lost in a forest. Yet all of the above answers could be correct. Which one is scientifically correct if you do not know your location?

reply: If you are lost you should be asking a different question.

NLP understands that we are different, and therefore we have to do different things to help people to meet their needs "where they are." "The scientific theory" that you insist on says we are all at the same place. NLP goes to where the person is and then helps the person to get from there to where they want to go. NLP insists that nothing is as crazy as continuing on doing the same thing over and over again that has not worked before as most of the "proven therapies," by your standard, insist on doing. If you need surgery do you want a surgeon who says 90% have the part we operate at this spot, so we will cut you there, or would you want them to be flexible enough to use what will work for you, it is not scientific, but it is what you need. NLP meets the needs of those who need help not the PSEUDO SCIENTISTIFIC PHILOSOPHY that you insist on.

PERRYFF@aol.com

reply: Sounds like it's working for you! Hey, if it gets your elevator to the top floor, who am I to point out that I don't see the building.

12 Sep 1999

Thank you very much for the enlightening articles on [Landmark Forum](#), [LGAT](#), and NLP. I just met a woman over the phone tonight via a singles ad who claimed to have had her life turned around through an LEC experience. She continues to recruit for them two years after the encounter, has moved back in

with her 82 year old father (I will now ask her if that was a result of her experience), and essentially resembled the rest of the ideological physiognomy outlined in your articles and links. Her vagueness about Landmark led me to seek enlightenment on the Web, which led me to your site.

After reading up on NLP, it occurs to me that the Suzuki Method of teaching violin and other musical instruments to masses of very young children who are not necessarily prodigies is an example of this kind of thinking. I understand now what it is about the Suzuki Method that disturbed me during the four years that my son was taking lessons. It was evident to me, at least, the Suzuki had a motivation to teach millions of children to play tiny violins: his father left him a violin factory after WWII and he needed to come up with some way to stimulate demand! The most common brand of violin played by these students is a Nagoya, which comes from Suzuki's factory.

Chomsky's theories of deep language structures in the brain are evoked by some Suzuki theorists as the reasoning behind the urgings that any child can learn the language of music as easily as a spoken and written language. While there is probably something to the belief that all children should be exposed to music in whatever form as early as possible, it is also probably a cruel joke to imply to gullible parents that their child possesses the talent to play the violin as well as the next kid. A high degree of skeleto-muscular- optical coordination is required, as well as the ability to discern small changes in pitch. In my experience -- I studied the piano for ten years as a child and teenager -- not every child can possess all these traits.

In addition, Suzuki enthuses that anything can be accomplished with enough love, including teaching a child to play like Fritz Kreisler. When my child wanted to stop playing or refused to practice -- he eventually quit the violin -- I felt like a total failure as a loving parent. Fortunately, he continues his musical training in other ways and has announced his intention to retry a stringed instrument, in this case the mandolin and the viola. But he really is talented musically, unlike other very unhappy looking children I have seen in Suzuki workshops and group lessons.

Thank you again for an enlightening website, which I shall refer to often and recommend to my friends who are misled by all sorts of New Age nonsense from killer asteroid attacks to Wiccans. The article about LGAT made some things clearer for me about the joint motivational projects we are subjected to in the auto industry. And thanks for pointing me to Dave Barry's article about Tony Roberts(TM). The business about motivating large groups of people by spinning a prize wheel was totally on point from my experience at the quarterly Individual Quality Partnership meetings that the UAW and Daimler Chrysler Corporation subject us to. (I stopped going after the second one!) I laughed until I cried!

Robert Glassman
Ypsilanti, MI

7 Sep 1999

Mr Carroll do you know that a good many of the so called facts on NLP are not true and if they decided to Bandler and Grinder could easily sue you for slander.

reply: Be specific, please.

You might consider changing the page or withdrawing it. My guess is that they do not know about your page.

reply: I'm always ready to change my mind.

First of all , Tony Robbins only got through practitioner training and is not a therapist in any state.

reply: Good. I never wrote otherwise.

He also denies any allegiance with NLP.

reply: Good. I stated that he does not claim to be doing NLP anymore.

Tsvi Kilstein who I know personally knows next to nothing about NLP. He took a modeling course from David Gordon with me at an NLP center. He must be part of that therapy mill that he refers to because. He is a Rabbi who works on middle eastern negotiations. He is a college professor. As far as I know he has no formal training in NLP.

reply: I assume you are referring to the quote from the Rabbi, featured at the top of the entry on NLP: *If medical schools turned out doctors the way NLP mills turn out "therapists", people would die like flies.* No other mention of the rabbi is made in the article, and since the Internet site from which this quote was taken has vanished, I'm removing the quote from the entry.

Richard Bandler and John Grinder founded NLP in an attempt to help psychology students who were unable to model Fritz Perls effectively. Bandler is a mathematician and John Grinder is a professor of Linguistics. They went on to model dozens of other people with respect to the excellent work they did . NLP is about modeling not therapy , therapists just happened to be the first group they modeled. Oh by the way Tsvi Kilstein showed up only for a couple of modeling sessions where David Gordon introduced him and he gave a report on his negotiations which were successful using the NLP modeling techniques.

reply: As I did not rely on Kilstein for anything more than a blurb, I cannot say that this information is of much interest to me.

One Thing I can say that I do not know of a single NLP center that has a program that says if you take one of their courses that you are a therapist.

reply: And I can say that I never said otherwise.

Some have state certification for hypnosis; however, therapy and who can be a therapist is controlled by the individual states in the United States. You claim your page is about critical thinking. I for one can not see any thing in your page that approaches thinking much less critical thinking. Get your facts correct before you print something. Your NLP page is a major fabrication of someone's imagination, not critical thinking

Tim Keating

Master Practitioner of NLP

I am not a therapist, nor do I claim to be.

reply: I can truthfully say that makes me very happy. (p.s. I'll bet you're not a lawyer, either.)

Rabbi Kilstein has seen this exchange. His comments are posted here.

Hi Bob. I am the infamous Rabbi Tsvi Kilstein whose comment about NLP you pulled from the site. I have a few thoughts on that.

1. I believe my original quote on that was pulled from a discussion on alt.psychology.nlp.
2. I stand by that quote.
3. I was trained by Richard Bandler, John Grinder, Robert Dilts, David Gordon, and many other stars of NLP. I served as a co-trainer for NLP-International and led NLP trainings.
4. I am not a university professor but if there are any openings please let me know.
5. I have never been involved in Middle East negotiations but if there were any openings, again, I would be interested.
6. NLP is divided into groups of trainers who think that knowledge of a technique makes someone a therapist. Only training as a therapist makes one a therapist.
7. I have watched your site grow and it is very impressive. Keep up the good work.

I love being the recipient of ad hominem arguments. I guess I must have really hit home with that NLP quote.

Rabbi Tsvi Kilstein

17 Mar 1999

You have helped me enormously with your great site. Although already a critical thinker, the skeptic dictionary really left me astonished with its breadth of articles, and I have become a regular visitor to your site.

At the moment, I'm taking a course in ADR (Alternate Dispute Resolution) at a respectable college in Ontario. Last week, we had a guest speaker talking about the use of NLP as a negotiation and mediation tool. Never having heard of NLP and since the whole presentation left a rather bitter taste in my mouth, I decided to find out whether you had any relevant information.

Needless to say, your article on NLP expressed all the misgivings I had. I downloaded the article and will share it with the other students in my class. Hopefully, the NLP article will persuade some of them to visit your site.

Thank you for a great site.

Gratefully yours,
Louis Van Hout
Ontario, Canada

11 Dec 1997

I enjoyed the Skeptic's Dictionary very much. I'm putting together my own site on doublespeak and propaganda, and I'd like to point to your site, if you don't mind.

Re: NLP. Back when NLP was just Bandler and Grinder (the latter, a legit linguist, having since distanced himself from all things NLP), I believe it was just a combination of mainstream therapeutic theories and practices recognizable to any practitioner. Eclecticism was the rage then, and NLP was, I think, just a run-of-the-mill (if pretentious and overstated) eclectic psychotherapy framework. It seemed to draw an awful lot from rational-emotive therapy and other cognitive-behavioral techniques.

The basic idea was to induce changes in behavior by changing the client's language in various ways, supposedly freeing him from restrictive or ritualized thought patterns and therefore from inappropriate behaviors. This is an

uncontroversial and even bland idea, but I think Bandler deliberately obscured that fact with pseudoscientific and New Agey gibberish designed to give NLP its own special, trademarkable, profitable mystique.

Later, NLP began pulling in ideas from all over the theoretical map, perhaps trying to become all things to all people and only succeeding in becoming, as you've seen, anything to anybody. Whatever-- for a time, Bandler and associates could charge top dollar for seminars and workshops, which was the whole point.

Thanks again for a great website.

Scott Burright

05 Jan 1998

I have taken the Persuasion Engineering 3-day seminar in New York (I think in March, 1997). It was part of the NLP practitioners program (which I did not take), and it was coached by Richard Bandler (one of the co-developers of NLP, and the developer of DHE) and John LaVale.

The style of teaching included nested storytelling by Bandler (which is supposed to convey messages to the unconscious mind), and more "formal" teaching by LaVale with exercises.

The material focused on applying NLP skills to the sales environment. What I remember was the strong focus on creating rapport with the customer, either by mirroring his movements and his tone of voice and language, or creating it instantly, by going there before him

I also remember the idea of well posed questions about what the client values, needs; wants; should have etc, and then replying with the information arranged in a specific order from most important to least important, while repeating the words which the client stressed. Also the idea of inoculating about buyers remorse in advance by repeating to him the critics he might hear from others, or asking him to commit to send other clients.

There is also a book called Persuasion Engineering by the same people, which I bought and did not read yet, but it contains the content of the seminar.

All in all, I enjoyed the course, because of its almost "standup comedy" style, but since I am not in the sales business, I cannot really testify about the effectiveness of the sales methods, or compare it to other sales methods. I used the "rapport building" methods in social environments, and they do seem to be mostly effective.

Armin Shmilovici

07 Jan 1998

I have attended both the DHE and the NPE seminars and I can honestly say that I enjoyed just being in the environment with R.Bandler. He's brilliant. However if you are after personal improvement then I would recommend Tony Robbins who originally learned NLP from Bandler.

Have you read the books *Unlimited Power* by Tony Robbins or *Frogs into Princes* by Bandler & Grinder?

Pål W. Jota

reply: No, but they come highly recommended.

11 Dec 1997

I do not find your description [of NLP] as either fair, or informative in any way, especially the irrelevant association with firewalking.

reply: Thank you for sharing. I mention firewalking because in one of his many incarnations as a self-help guru, Tony Robbins (who used to promote firewalking) promoted NLP. Robbins is still promoting self-improvement. From what I can tell from his infomercials and interviews, he is teaching "communication skills".

"The map is not the territory" - one of the cornerstones of NLP, basically says that the model of the world should not be confused with the real world. Isn't that a philosophy any scientist would adapt?

reply: Not confusing the world and models of the world is not a philosophy, but a bit of caution that anyone doing philosophy must heed. It is hardly profound and it certainly is not a cornerstone of anything significant in philosophy.

NLP originated by trying to model the behavior of various peoples which are successful in their fields, beginning with the language patterns of the Hypnotist-Therapist Milton Erickson, and that is the source of the name.

reply: Is this the source of that writing correspondence course I took years ago which advised me to copy out word for word *War and Peace*? By mimicking the style of the great writers, I was promised I, too, could become a great writer. But don't tell me that you believe that if someone learned to parrot the speech of Bill Gates that person would become a billionaire?

There are many things to admire in Dr. Milton Erickson's life: determination, self-will, confidence, hard work, seeing physical disabilities as challenges rather than handicaps. But his language patterns are not where I would advise anyone to begin if they wanted to model their life after Dr. Erickson's. But then I am not a believer in hypnotherapy as a way to find deep truths hidden in the unconscious mind.

It originated in the middle seventies, and over the past 20 years, several of the "models of human perception" were modified, or replaced. Like scientific theories, they evolve. .Currently, NLP contains many working models (in the sense that they can be used to teach other people) to perform various mystical things on your list, like therapy, hypnosis, induced memories, psychic reading, etc. For each one of those activities, the explanation given is quite reasonable regarding why it should work.

reply: I don't know of anyone who considers therapy, hypnosis, and induced memories to be in the same class as psychic readings. What kind of modeling leads to treating these items together?

*What makes NLP hard to validate in a scientific way is its recognition of the difference between different people, which in essence means that according to the person's behavior, he would be treated in a slightly different approach. It can be judged by the results, rather than by the theory. They claim very high success rates in helping people lose weight, or stop smoking. Unfortunately, even those claims are hard to validate scientifically (unless you can do it in a prison population). NLP relies *explicitly* on the placebo effect - if a person believes that a personal change is possible, then he will obtain it more easily than if he does not believe. So, the first step in a treatment, is usually to change the person's belief - i.e. to prepare a specially made placebo for him!*

reply: I must be missing something here.

The most comforting aspects about NLP practitioners is the belief that things should change fast - if a client did not get the change he was asking for within 1-3 sessions, than he should be left alone. Over the course of the years, because of legal and marketing considerations, many of the leading NLP practitioners decided to develop their private copyright brand name, e.g. DHE [Design Human Engineering™].

Armin Shmilovici

reply: I am sure our readers now have a much clearer understanding of NLP. Thank you.



[neurolinguistic programming](#)



reader comments:

Noah's ark

19 Sep 2002

I have spent a few happy evenings exploring your site, and find it quite entertaining, albeit somewhat distressing in the depths of human gullibility which lay therein revealed.

I noticed quite a bit of dialogue under the heading of Noah's Ark, mostly in favor of its existence, and I wanted to toss one more bit of fuel [gopher wood maybe?] on to the fire -- you may make such hay of this as you can; I have not seen this point raised elsewhere.

Specifically, some creationists and other literalists like to point out that the proportions of the Ark closely resemble that of a modern cruise ship.

Problem is, regardless of size, that shape--what we would think of as a basic boat or ship shape--is about the worst shape you could have for an unpowered, unsteerable vessel at sea, in any weather condition, let alone the tempestuous weather presumably prevailing during the purported Flood episode.

'Broaching' it is called--the tendency of any vessel to be turned by wind and waves until it is broadside to the seas, where it is rolled violently and helplessly, frequently to the point of capsizing, swamping,

or breaking up, and certainly to the point of severe structural stresses and extreme discomfort to the crew! The effect on hundreds of wild animals may be imagined....Loss of propulsion or steering during heavy weather is one of the greatest fears of the mariner [yes, I am one, a merchant marine officer], and is the reason that lifeboats are equipped with a simple device called a sea anchor, a drogue device of fabric shaped like a parachute, or in emergency, a simple bucket on a line, to keep the bow of the boat turned into the waves; and why modern inflatable liferafts are usually round [aside from ease of design of course]. I don't recall that the Ark specifications called for a sea anchor just in case the weather got rough, although I'm sure the diehards will adopt that possibility. I understand the word "Ark" itself signifies simply 'box'--verily, verily, I say unto you, a simple foursquare box design would have been much more seaworthy under the circumstances. Interestingly, the Greek flood myth--Deucalion taking the place of Noah, I believe--refers to him setting off in a simple wooden box, with his wife.

In conclusion then, the Ark was an extremely poor design for the job it was intended, which raises serious doubts about the wisdom of an Almighty God/Yahweh/Elohim who either is ignorant of, or completely disregards, some of the most fundamental principals of naval architecture. And you can't even work that up into a 'test of Noah's faith' dodge, as he wouldn't have known any better himself--at least not until about two hours into the voyage....

I hope you find this useful, informative, and amusing, and I extend in advance all permissions you may require to use the information herein for any educational, non-commercial, and hopefully inflammatory purpose as you see fit.

Sincerely,

Robert Minor

24 Jan 2001

I stumbled across your sight on Noah's Ark while researching another topic.

Well, I figured since so many well-meaning and intelligent people have spoken, I should throw in my two cents.

You make very good, logical points. However, your logic should lead you to understand that matters of faith cannot be explained logically. Likewise, those who have embraced an anti-religious bent will not accept any measure of proof (or a universe of circumstantial evidence) without attempting to disprove it. God works in circumstantial evidence (small things that SUGGEST his reality without coming right out and proving it). He doesn't work in absolute proofs. "Why?" Because it boils down to this. God wants something from us that He can't get by creating it OR showing himself to the general populace.

reply: If matters of faith cannot be explained logically, then why are you trying to explain it logically?

What could God want that He can't create for himself. Worship. Love. True and honest "I Love You" worship. If he created a group of people who did nothing but worship Him because they were created that way, it would be like you building a robot to worship you. There's no genuine love or worship. It's what he's programmed to do. For God to get the genuine worship He desires, He has to give us the most wonderful and dangerous gift of all, FREE WILL; the power to say, "I worship you," or "I don't worship you." Then, if we choose of our own FREE WILL to worship God, the praise is precious, truly worth something. God sent the flood because He saw that nearly everyone chose not to love Him. Likewise, the few who did choose to worship Him would certainly be persecuted and killed rather than changing anyone's mind. The Bible says that He flooded

the Earth because He saw the hardness of their hearts. With a world full of Godless creatures, God's creation would turn into a nightmare.

reply: I don't think your view of God does him much praise. Why would an omnipotent, omniscient being need to be worshipped? Your notion that God lacks something only we can give him makes God look weak and as if he were suffering from low self-esteem. I don't know about other readers, but your explanation sounds like the explanation some bad father might give as to why he had so many children even though he couldn't provide for them properly.

Imagine yourself in a world full of people who didn't believe in God. It wouldn't be some atheistic paradise. No one would feel any compunction about killing you. They have no God or punishment to worry about (believe it or not, most of the laws we follow today were created from natural laws spelled out in the Bible...a.k.a. given to us by God). No one would feel any compunction about stealing everything you own. What do they have to worry about?

reply: As I have said to other writers, if the only thing that keeps you from killing others and committing other atrocities is your belief in God, please please never abandon that belief! I agree that a world of only atheists would not be a paradise. But something like 90% of the world's population believe in God and the world isn't quite as blissful as you seem to think it should be if people fear God. We have laws against killing and stealing because we want to live and live well, without fear of being killed or robbed. If God changed the commandments tomorrow to allow killing and stealing, we'd still make them illegal.

I'm about as logical as anyone you'll ever meet. However, I am a Christian (I didn't say Methodist, Baptist, Catholic, etc. I said Christian.) because I was simply overwhelmed by the circumstantial evidence.

Understand: As much as you deeply wish NOT to believe, others WISH to believe. So, it stands on both sides of God.

While I'm sure you will have some serious flaming to do because of this letter, I felt compelled to write it to try to clear up some of the misconception about God (misconceptions often held by Christians themselves, oddly enough). It is my hope that you will attempt to read this with some measure of openness. And, despite your before-stated atheism,

God Bless You, David A. Smith

reply: I have a feeling I'm a bit more open about these matters than you are, David.

9 Dec 98

I just discovered your site and the discussion re Noah's ark. I enjoyed it immensely! I hope you'll enjoy the following story that happened to me. I lived in Turkey during 94, 95, 96 and part of 97. I once wandered into a conversation between two other Americans I knew there. They were both engineers, one a structural engineer, one mechanical. Both young, bright and capable in their disciplines. They were talking about Noah's ark. The mechanical engineer was talking about how Noah's ark had been found near Mt. Ararat, several hundred miles from where we were working. He was talking about how big the ark was, dimensions, etc. I was listening, the other engineer was listening. I kept waiting for the other shoe to fall and finally realized he was serious. Before I could catch myself, I laughed.

I said, "you can't be serious; you really believe that story literally, that he (Noah) gathered up all those animals and put them on an ark?" I looked to the structural engineer, he was not smiling. "You too," I said. Both of them believed the literal truth of the story. I had discovered many times before that people capable of believing stories like the one about Noah's ark are not necessarily stupid, but, nevertheless, it always surprises me when I see it happen. They seem to have the ability to shut down part of their normal reasoning ability when considering the Bible.

I told them that I too considered myself a Christian, but there was no way I could force myself to believe in a literal translation of the Bible. This was the first time religion had come up and my reactions that day put a coolness on my relationship with these two men. They were not the same around me after that. I could see them kind of pulling together, closing ranks. It was sad to me to have this happen. Sad for myself and sad because of the larger meaning of this incident. I believe Elaine Pagels talks about this "us" and "them" kind of religious phenomena in her book The Origin Of Satan.

Jim Russell

reply: Selective skepticism is quite common. I find many of my readers praise me for my critiques of New Age ideas, paranormal and psychic frauds, etc., but draw the line at religion. Many skeptics even defend drawing the line at religion as long as one bases one's belief completely on faith. The coolness of the response you received, however, is not necessarily a sign of drawing the line between us (who have faith) and them (who don't). It could be a sign that these men did not think their belief was a matter of faith, but one that had been established by suitable evidence and argument.

31 Jul 1996

Great work, but...

[re] Noah's Ark:

You really took the hard way to refute this claim. What you describe as "bigger than any supertanker we've ever seen" is actually smaller than you would expect - the bible specifies its dimensions which are in order of magnitude of 1,000,000 cubic feet - start from the bigger animals - and see how many of the 50,000 pairs may be squeezed in (+food for 6 months).

Avnimelech Rani

reply: I often take the hard way and am well known around these parts for swatting flies with sledgehammers.

21 Nov 1996

Did you look in the December 1996 issue of Popular Mechanics? Apparently it shows that scientists have spotted the remains of a huge ship 7,546 feet above sea level on a mountain 20 miles from Mount Ararat and along with the discovery, the remains of large drogue stones used to stabilize a large ship. That shows your article on Noah's Ark is flawed.

James Gonzales

reply: How do you "spot" a huge ship? Either you have found it or you haven't. Do these "scientists" you mention have names? You're sure you're not passing on another one of those stories from pilots or airplane passengers who "see" huge ships 20,000 feet below them? Anyway, do you really think a wooden ship could survive from the time of Noah? If a ship is found at an elevation of over 7,500 feet, which I doubt will be the case, how will these "scientists" know it's Noah's Ark? Do you think they'll find a brass plate with Noah's name?

30 Jan 1997

Your entry on Noah's Ark was interesting and brought up several points which I had never considered. I'm always interested in separating fact from fiction. However, I am troubled by some of your comments on religion at the beginning of the article. I think that considering the purpose of this forum (to expose the myths behind "truths" not supported by evidence), your comments on the rightness or wrongness of a god who wipes out all life (except for the ark) to be out of place since they are opinion drawn from "common sense".

reply: I don't know where you got the idea that I was conducting a "forum" or that my purpose is "to expose the myths behind truths not supported by evidence"....whatever that means. In any case, my comments

about a Perfect Being wiping out most of creation were meant to indicate that such behavior is inconsistent with the concept of perfection and infinite goodness, two attributes commonly attributed to the God of the Bible. As you must know, despite the fact that God is said to be ineffable, that has never stopped believers from talking about God. If a missionary is murdered by the very people he has devoted his life to helping, those who believe in God have no compunction against claiming that "God called him to heaven." The true believer would not say "I haven't a clue why God let this good man be killed." I have no problem with theodicy: if believers think they can explain the ways of God to humans, let them. But we atheists reserve the right to use logic, demand consistency in thinking and to offer alternative explanations for evil events. Also, if fundamentalists demand that the Bible be read literally, we have the right to point out absurdities and contradictions which a literal reading renders.

Answers to questions like "would a loving god do this" or "would a righteous god set an example like this" are not answerable because they are absolutely untestable. They are opinion based on belief.

reply: Being opinions does not protect them from critical analysis. Some opinions make sense; some don't. Some are well-founded; some are not. Some opinions are self-contradictory. Being untestable does not mean they do not have to maintain internal logical consistency in order to be plausible.

Your comments (in this forum) serve only to humiliate people of faith and color yourself as an anti-religion bigot who resorts to ad hominem (not sure if an attack on God is ad hominem!) attacks. Those attacks lessen your credibility, which is substantial from what I've read.

Kenneth Thomas

reply: I doubt that any of my comments cause humiliation to people of faith. On the other hand, I own up to being anti-religious, though I deny being a bigot but if it makes you feel good to call me a bigot, by all means, go ahead. And if you consider my demand to be coherent, logical and free from self-contradiction to be an ad hominem attack on God, then God help you and all your followers. You may wish to worship an irrational Being, but don't expect to be praised by other believers for your efforts.

19 Mar 1997

You have a fascinating website. In regards to your belief that it would be impossible for a flood to destroy all of civilization without leaving a trace you are mistaken.

reply: I wasn't aware I made such a claim. Thanks for letting me know.

Orson Scott Card published a book titled "Pastwatch." He puts forth the theory that the land bridge between Africa and the Arabian Peninsula also acted as an immense natural dam separating the ocean and what is now the red sea. When the ocean finally eroded away the top of the barrier, any people living on the other side would have experienced a flood of epic proportions. As for it destroying all of civilization, if the flood occurred early enough in history the potential tribes in that area might have been the only civilized people at that point of history.

Although, most of Card's book is science fiction and hippie drivel, there are quite a few interesting ideas in it. It is definitely worth reading

Kevin Butts

reply: I see. Well, I'm sure Mr. Card was playing with a full deck, so I won't question his hippie drivel or science fiction.

23 Jun 1997

Here is another interpretation of "Noah's Ark"

One issue that is often raised against Christianity is Noah's Ark and the Flood. Did it really happen? Did the flood really cover the whole world? Is there enough water on earth to cover all the land? Could the ark really hold two of every kind of animal in the world? Though these might be intimidating questions, the answer to each is a resounding, "Yes."

God said to Noah in Genesis 6:14-16, "So make yourself an ark of cypress wood; make rooms in it and coat it with pitch inside and out. This is how you are to build it: The ark is to be 450 feet long, 75 feet wide and 45 feet high. Make a roof for it and finish the ark to within 18 inches of the top. Put a door in the side of the ark and make lower, middle and upper decks" (NIV). According to God's Word, Noah built the ark. Eight people entered it and all humanity died in the ensuing flood.

Did the flood really happen? Yes. Jesus said in Matt. 24:37-39 that the flood happened. If you can't trust Jesus, you can't trust anyone. As far as physical evidence goes there are numerous sedimentary deposits world wide which suggest a universal flood. There are countless fossil deposits world wide (For fossilization to occur organisms must be buried rapidly with sediment.). Every major culture has a flood legend. Of over 200 flood legends, 95% say the flood was universal; 70% say survival depended upon a boat; 66% say the wickedness of man was the cause; 88% say there was a favored family; 66% say the remnant was warned; 67% say animals were also saved; 57% say the survivors ended up on a mountain; 35% say birds were sent out; 9% say eight people were saved; and 7% mention a rainbow.

Is there enough water to flood the entire earth? Absolutely! If the earth were perfectly spherical the oceans would cover all the land by more than a mile in depth. The biblical account is that it rained for 40 days and nights in which the floodgates of the heavens were opened up as well as the fountains from the earth (Gen. 7:11;8:2). There is a theory known as the canopy theory that states it had never rained on the earth up to the time of Noah and that a mist watered the plants (Gen. 2:6-6). The theory goes on to state that there may have been a heavy cloud or water vapor layer over the entire earth and that it was this canopy of water that became torrential rains during the flood period.

Did the flood cover all the earth? Yes it did. The depth of the flood waters is described in Gen. 7:19 as covering "all the high mountains under the entire heavens." Also, there are many references in the Bible to it being global: Gen. 6:1,4-5,12,13,17,19;7:4,6,10,19;8:3;9:15. There were 40 days of rain (Gen. 7:12), 110 days of flooding (Gen. 7:24) and 221 more days of draining (Gen. 8:1-5,13-14). That is a total of 371 days of flooding that covered the mountains. That could not be a local flood.

Could the ark really contain all the animals of the world? Again the answer is "Yes." But let's look at the last question in more detail. The ark took about 120 years to build. Noah was 480 years old when he began the work and he had the help of his wife, three sons, and his son's wives. He probably hired local people to help in the construction.

The dimensions of the ark have a ratio of six to one. The Ark was six times longer than it was wide. This is the best ratio for modern ship building. Model stability tests have shown that the design is stable for waves up to 200 feet high and that the ark could have rotated 900 and still righted itself.

The volume of the ark would be 450 feet long by 75 feet wide by 45 feet high. This equals 1,518,750 cubic feet and is comparable to 569 modern railroad boxcars. Therefore each boxcar, by comparison, would be $1,518,750 \div 569$, or 2,669 cubic feet of space. The average size of an animal on the earth is smaller than a cat. But, just to keep it safe let's consider the average size of an animal to be a sheep. The average double deck stock car holds 240 sheep. The Ark capacity would be about 569×240 equaling 136,560 animals of that size. However, that still is not accurate for our needs. Since most birds, reptiles, and amphibians are much smaller, let's double the boxcar capacity for them. Therefore, the boxcars could each hold 480 different kinds of birds, reptiles, amphibians.

Noah had to take two or seven of every kind of animal on the earth. Though it is not really known exactly what is meant by a biblical kind, it is generally considered to be animals that are fertile within their own groups. Any dog can breed with any dog, therefore, dogs are one kind. It would only be necessary to bring representatives of each kind since the parents could produce offspring that would carry the genetic information for all variations within their kind.

- *The total number of mammals would be 3,700 times two pair which equals 7,400 animals. 7,400 divided by 240 = 31 boxcars used.*
- *Since Gen. 7:3 says to take seven pairs of every bird then the total for birds would be 8,600 times two pair times 7 or 120,400 animals. $120,400 \div 480 = 250$ boxcars.*
- *The reptiles and amphibians would be 6,300 plus 2,500 or 8,800. 8,800 times two pair equals 17,600 animals. 17,600 divided by 480 = 37 boxcars.*

The total number of boxcars used would be 318 with a total number of animals at 145,400. There would be 251 boxcars left over. That means that only 44% of the ark would be used for storing the animals. Obviously, then, the rest of the space would be used for food for the people and animals and sleeping quarters. In addition, considering that insects are extremely small, it is easily conceivable that they could be housed in part of the remaining space.

It should also be considered that many animals can hibernate. Additionally, predators and prey have been known to habitat peacefully together during situations of stress like fire, flood, or earthquake. In the Ark, normal animal behavior would probably have been different from normal. Specialists in animal behavior have noted that animals can sense danger and have often migrated to escape it. Perhaps God used their migratory instincts to get them to the Ark.

Though this is only a brief analysis, it should present enough evidence that the Ark account is certainly within the realm of possibility.

no signature

reply: Dear anonymous: are you a reincarnation of a medieval casuist? In any case, you didn't need to argue to establish that the Ark account is within the realm of possibility. We concede that point. Now, where is your argument to establish that the account is within the realm of reasonable probability? (p.s. Why no signature? A reader notified me that the above can be found on the [Web Page of one Matthew J. Slick.](#))

7 Aug 1997

I must say that I am somewhat disappointed by your response to the anonymous "arkeologist" who stated that a global flood was in the realm of possibility. Therefore, I feel the need to write this response. In this, I will respond to his three major points.

Did the flood really happen?-He starts by quoting Jesus. However, Jesus also said that the mustard plant had the smallest seed and that the second coming would occur during the lifetimes of his disciples. I guess you can't trust

anybody. He then says that there is a great deal of physical evidence to support a global flood. However, he presents none of this evidence, apparently expecting us to take his word as gospel. He then mentions that "every major culture" has a flood myth. First of all, a thousand myths do not add up to a single fact. Second, if a flood really happened, why do they all differ on details? They don't even agree on the flood's universality.

Is there enough water to cover the earth?-The vapor canopy is remarkably flawed. It would take about 9 kilometers of water to cover Mount Everest. The air pressure at sea level is one atmosphere, or about 14.5 pounds per square inch. There would have to be enough vapor to produce 9 km of water. This vapor would add air pressure to the atmosphere; in fact, it would be the majority of the antediluvian atmosphere. This would be the equivalent of living 9 km underwater. Since the pressure increases by one atmosphere about every ten meters you go underwater, the vapor would add 900 atmospheres, or 13050 pounds per square inch, to the air pressure. And the only way to keep all this water from condensing would be to raise the temperature. The pressure and heat would surely be enough to kill life as we know it.

Could all the animals fit on the ark?-He first starts by saying that Noah could have hired locals to help him build the ark. However, this begs the question: Why? The locals knew why he was building the ark, so why would they expedite their own destruction? He then goes into storage issues. First of all, he says that 480 animals could have fit into an area equivalent to a modern-day boxcar. To a non-creationist mind, that seems a little crowded. In addition, his calculations are inaccurate.

I will start with the mammals. Since Genesis 7:2 states that Noah was to bring seven pairs of "clean" animals and only two "unclean" animals on the ark, and since Leviticus states that the only unclean animals are the camel, the coney(rabbit), the hare, and the swine, 3696 of the "kinds" would have been in seven pairs.

*3696 times 14 equals 51744.
51744 plus 8 equals 51752.
51752 divided by 480 equals 108 boxcars.*

I will concede that the birds would occupy 251 boxcars.

As for the reptiles and amphibians, since they were not unclean, they would have traveled in sevens.

*8800 times 14 equals 123200.
123200 divided by 480 equals 257 boxcars.*

108 plus 251 plus 257 equals 616 boxcars, or 8% more than the capacity of the ark. And this is without the marine life, which the anonymous casuist has

omitted from the ark without explaining how they could have survived the silt-choked, turbulent waters of the flood. He must have done this because he knew it would destroy his calculations, since the "other" marine life by itself would have occupied 803 boxcars.

I hope that I have shown that a global flood and Noah's ark are definitely within the realm of impossibility.

Chris Durrance

reply: I'm not sure exactly what you have shown. Boxcar math is not my speciality. I am sure, however, that the number of boxcars needed to hold the true believers who will find fault with your math and logic is incalculable.



[Noah's ark](#)

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nocebo and nocebo effect

Research has...shown that the nocebo effect can reverse the body's response to true medical treatment from positive to negative. (Root-Bernstein 1998)

A nocebo (Latin for "I will harm") is something that should be ineffective but which causes symptoms of ill health. A nocebo effect is an ill effect caused by the *suggestion* or *belief* that something is harmful. The term 'nocebo' became popular in the 1990s. Prior to that, both pleasant and harmful effects thought to be due to the power of suggestion were usually referred to as being due to [the placebo effect](#).

Because of ethical concerns, nocebos are not commonly used in medical practice or research. Thus, it is not unexpected that the nocebo effect is not well-established in the scientific literature. However, there are some anecdotes and some studies that are commonly appealed to in the literature to support its validity.

- More than two-thirds of 34 college students developed headaches when told that a non-existent electrical current passing through their heads could produce a headache.
- "Japanese researchers tested 57 high school boys for their sensitivity to allergens. The boys filled out questionnaires about past experiences with plants, including lacquer trees, which can cause itchy rashes much as poison oak and poison ivy do. Boys who reported having severe reactions to the poisonous trees were blindfolded. Researchers brushed one arm with leaves from a lacquer tree but told the boys they were chestnut tree leaves. The scientists stroked the other arm with chestnut tree leaves but said the foliage came from a lacquer tree. Within minutes the arm the boys believed to have been exposed to the poisonous tree began to react, turning red and developing a bumpy, itchy rash. In most cases the arm that had contact with the actual poison did not react."^{*}
- In the [Framingham Heart Study](#), women who believed they are prone to heart disease were nearly four times as likely to die as women with similar risk factors who didn't believe.^{*} (Voelker, Rebecca. "Nocebos Contribute to a Host of Ills." *Journal of the American Medical Association* 275 no. 5 (1996): 345-47.) [Of course, one might argue that the women in both groups had good intuitions. The objective risk factors may have been the same, but subjectively the women knew their bodies better than the objective tests could reveal.]
- C.K. Meador claimed that people who believe in voodoo may actually get sick and die because of their belief ("Hex Death: Voodoo Magic or

Persuasion?" *Southern Medical Journal* 85, no. 3 (1992): 244-47).

- "In one experiment, asthmatic patients breathed in a vapor that researchers told them was a chemical irritant or allergen. Nearly half of the patients experienced breathing problems, with a dozen developing full-blown attacks. They were "treated" with a substance they believed to be a bronchodilating medicine, and recovered immediately. In actuality, both the "irritant" and the "medicine" were a nebulized saltwater solution."^{*}

Arthur Barsky, a psychiatrist at Boston's Brigham and Women's Hospital, found in a recent review of the nocebo literature that *patient expectation* of adverse effects of treatment or of possible harmful side-effects of a drug, played a significant role in the outcome of treatment (Barsky et al. 2002).

Since patients' beliefs and fears may be generated by just about anything they come in contact with, it may well be that many things that are unattended to by many if not most physicians, such as the color of the pills they give, the type of uniform they wear, the words they use to give the patient information, the kind of room they place a patient in for recovery, etc., may be imbued with rich meaning for the patient and have profound effects for good or for ill on their response to treatment.

See related entry on [the placebo effect](#).

further reading

- ["The Nocebo Effect - Scattered studies suggest that negative thinking can harm patients' health,"](#) by Gardiner Morse, *Hippocrates*, November 1999 Vol. 13, No. 10
- ["The Nocebo Effect: Placebo's Evil Twin,"](#) by Brian Reid Special to *The Washington Post*, April 30, 2002
- [Is there an "anti-placebo" effect?](#) The Straight Dope, 28-Jan-2000
- [The Nocebo Effect: Do No Harm](#) by Morton Kasdan, M.D. et al., *Journal of Southern Orthopaedic Association* Summer 1999
- ['Nocebo Effect' May Explain Some Drug Side Effects](#) Feb 7, 2000 by Merritt McKinney
- [Expectations about your health or illness can cause reality to follow suit](#) by Susan McCarthy, Salon.com, 7-15-1999
- [How the Media and Lawyers Stir Up False Illness](#) by Michael Fumento

Barsky, Arthur J., M.D. et al. ["Nonspecific Medication Side Effects and the Nocebo Phenomenon,"](#) *Journal of the American Medical Association*, Vol. 287 No. 5, February 6, 2002.

[Engel, Linda W. et al. *The Science of the Placebo - Toward an Interdisciplinary Research Agenda* \(BMJ Books, 2002\).](#)

[Root-Bernstein, Robert and Michele. *Honey, Mud, Maggots and Other Medical Marvels: The Science Behind Folk Remedies and Old Wives' Tales* \(Houghton Mifflin Co., 1998\).](#)

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Mass Media Bunk

features news stories or articles in the mass media that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Bunk

17

September 13, 2001. Many are claiming they see the face of Satan in an associated press photograph by Mark Phillips of the billowing smoke at the World Trade Center.

If you look closely, at the bottom you can also see Jerry Garcia playing the guitar.

Above Jerry is either an ancient Assyrian or Mycenaean warrior.

On the warrior's shoulder is a replica of the [face on mars](#).

On top of the head of the face on mars is Cartman of Southpark, tipped on his side or possibly it is a ring in the nose of a figure that resembles an earless George Bush or Robert Bork.



copyright [Mark D. Phillips](#)

Then again, this could be Satan. Or it may just be another case of [pareidolia](#) brought on by *daemonophilia* (excessive obsession with spirits).

In any case, this was all prophesized by Bob Dylan in 1981 in a song called "Angelina" where he wrote not only of "the tree of smoke" but: "His eyes were two slits would make any snake proud with a face that any painter would paint as he walked through the crowd." Some would say that this interpretation could be an example of [shoehorning](#), but they would be wrong. They obviously did not heed the warning in such lines as "There's a black Mercedes rolling through the combat zone, Your servants are half-dead, you're down to the bone," "I see pieces of men marching, trying to take heaven by force," "In the valley of the giants where the stars and stripes explode," and "Begging God for mercy and weeping in unholy places." How much more proof could anyone ask for?

note: Mark Phillips, who took the "devil in the smoke" photo, has photos of the

World Trade Center in all its glory for sale at his [website](#). He is donating much of the proceeds from the sale of these photographs to the Twin Towers Fund.

September 4, 2001. It used to be that the front page of the daily newspaper in a major metropolitan area would be devoted to newsworthy stories. Even today, when the tabloids have taken over both print and video journalism, the front page junk news is usually about something new. Not today. At least, not in today's *Sacramento Bee*. Today there are five stories on the front page of the Bee. Hewlett-Packard plans to merge with Compaq and become almost as big as IBM. A shark kills another swimmer on the East Coast. Enrollments at the local campus of California State University are swelling as a new school year begins. Our governor sponsors a charity that benefits children but is open to abuse by both the governor and contributors. Most people would agree that those are newsworthy stories. The fifth story on page one is tucked in the lower right hand corner and has the headline: **Web site gives scientists outlet for explaining the unexplainable**. The byline is Edie Lau, Bee science writer.

The story isn't about science but about a few people who are being catered to by [Charles Tart](#), "a leading expert on parapsychology." Tart started a web site over a year ago called [TASTE, The Archives of Scientists' Transcendent Experiences](#). We didn't think much of Taste [last year](#) and why the Bee considers this front page news this year is beyond me. Gary Condit must have given another bad interview and surely that should have been on the front page.

We have written about [Tart's so-called expertise as a scientist and parapsychologist](#), so we won't beat that dead horse again. Consider the headline and the byline of today's story. You would think the story has something to do with science. But science isn't in the business of cataloguing or explaining transcendent experiences (except by [neurologists](#))* nor is it in the business of "explaining the unexplainable." If it is purely subjective or non-empirical it is not a matter for [science](#). Yet, Tart continues to complain and whine about the fact that some scientists are afraid of being laughed at or fired should they reveal to their colleagues that God talks to them in a secret language or that they frequent alien spaceships or that the Virgin Mary appears to them every Friday the 13th. So he created a haven for these persecuted scientists, a place where they can anonymously and safely tell the world about their transcendent experiences. What he complains about is that scientists are not allowed to bring into their scientific work the stuff of their extra-scientific lives: their religious beliefs, their paranormal experiences, their transcendent ecstasies. Really? Do religious people complain that they are not allowed to bring in their scientific beliefs and practices to their churches, chapels, synagogues, mosques, etc.? If they did, who would listen to them? So why is anyone interested in Tart's complaint?

On the front page of his "online Journal," Tart claims that there is a stereotype that "real" scientists don't have spiritual, mystical or psychic experiences. Is this a stereotype or a personal delusion? Real scientists who write books about such things are can't-miss authors and guests on Oprah, Larry King and the other tabloid talk shows. Where has Tart been the past few years? He should read the latest issue of the [Skeptical Inquirer](#) (vol. 25, no. 5, September/October 2001), a special issue on Science and Religion. He should read it not for the main articles, since they all maintain that science and religion should be separate endeavors, but for the

references they make to recent popular books on religion by scientists. Hasn't he heard of [John Mack](#), the Harvard professor and [author](#) who believes in [alien abductions](#)? [Courtney Brown](#) is still at [Emory University](#), despite his constant [dabbling in the transcendent and paranormal](#). Hasn't Tart followed the success of scientist-authors like [Michael Behe](#), [William Dembski](#), [Robert Jastrow](#), [Leon Lederman](#), [Frank Tipler](#), [Paul Davies](#), et al.? Does he know nothing of the "real" [Templeton Fund](#)? or the [PewForum](#)? He certainly knows about the [Fetzer Institute](#) and the [Institute of Noetic Sciences](#), since he gets money from them. Whether he is feigning ignorance or not, Tart himself is trying to get on the bandwagon of Scientists Promoting Occult or Kooky Stories (SPOOKS) with his latest book called [*MIND SCIENCE: Meditation Training for Practical People*](#).

The so-called Journal that Tart has created is typical of his sloppy scientific work. The web site is simply a chat room where anyone can post a story. Tart has no way of knowing whether the people who write the stories are who they say they are or whether the stories are accounts of personal experiences, confabulations or pure fiction. I suspect he doesn't care. His real purpose seems to be propaganda for his personal delusion that he and others like him are persecuted for their weird beliefs. Anyone who has followed the pages of the Skeptic's [Refuge](#) and [Dictionary](#) for the past seven years knows that weird beliefs are honored in our society and that, if anything, scientists who espouse weird beliefs are likely to find their status elevated rather than find themselves needing an outlet like Charles Tart's unscientific journal.

The good, though old, news is that Tart is retired and is no longer feeding at the public trough (UC Davis, where he was a member of the psychology department for some 25 years). He now wastes the money of private donors who sponsor his [Institute for the Scientific Study of Consciousness](#) as he continues his quixotic quest for an altered state of being and a life without bureaucracy.

August 22, 2001. [The Utah State Bureau of Criminal Identification](#) (BCI) "thought it would be interesting" to look at the statistics they gather and check them against a few "urban legends." They may have had some fun, but in the process they have just muddied the waters regarding evidence for belief in the [full moon](#) being a causal factor in criminal behavior and domestic violence increasing significantly on [SuperBowl Sunday](#) (SBS). Not content to confuse the issue on these two topics, BCI added a third: according to their data, Mother's Day is almost as bad as SBS for violence against women by men. According to BCI, a mother is three times as likely to be assaulted by a man on Mother's Day as on any other day of the year. To their credit, BCI notes that their data can't even justifiably be applied to the entire state of Utah because more than half of the law enforcement agencies in the state don't supply the kind of reports that their "study" is based on. Fifty-seven of 111 reporting agencies did not participate in their Incident Based Reporting (IBR) program (see page 8 of [their report](#) for an explanation of IBR). This fact is not mentioned by Pat Reavy, who wrote an article for [Deseret New.com](#) entitled "Moon shines on crime- Full moon tied to hike in most types of crime."

Reavy does note that one of the eight categories studied by the BCI, homicide and manslaughter, had reports of only a small number of cases in the past five and one-half years. By defining 'day of a full moon' as "the day before, the day of and the day

after a full moon", the BCI was able to conclude that since 19 homicides or manslaughters occurred during a full moon and an average of about 5 on other days, there was a "startling" difference. Not quite. This means that over about 214 days (13 full moons * 3 days * 5.5 years) there were only 19 such crimes or an average of 0.09 crimes on full moon days versus 0.05 on other days. With such small absolute numbers, these relatively large percentage differences don't seem to be very significant. For example, if they had counted only the day of a full moon as a day of a full moon (instead of the day before, the day of and the day after) there would have been no manslaughters on the day of the full moon and they would not have gotten the "startling" result of a 220% difference. If nothing else, this kind of study makes it obvious why national rather than local surveys of crime data are essential to truly understanding whether there is anything significant about the full moon and its relationship to crime. In their [report \[pdf file, pp. 11-12\]](#), however, BCI baldly states: "There is more crime during a full moon." The difference between full moon days and non-days is 1.5 (or 2.86%) more crimes on full-moon days.

A couple of other interesting tidbits: robbery decreases 17.19% during a full moon and the graph and the data in the BCI report don't jibe. The graph says that the homicide rate on non-fullmoon days was 0.05 while the chart says it was 0.06. The graph says that on full moon days the homicide rate was the average of 0.01, 0.12 and 0.09, which is 0.07, but the chart says the rate was 0.09. Should we be comparing .05 to .07? or .06 to .09? How does either of these pair add up to a 53.16% difference? Finally, only 16 cases of homicide/manslaughter have been reported by the 54 reporting agencies during the first 6 months of 2001. We had six murders by one person in one day this week in Sacramento (August 20). The full moon was a couple of weeks ago (August 5), in case you're wondering. (**update:** We had another mass murder in Sacramento on September 8 by a security guard who shot and killed at least five people. The last full moon was on September 2.)

The claims regarding the SuperBowl ("There are more domestic assaults on Superbowl Sundays") and Mother's Day ("There are more domestic assaults on Mother's Day") are even more confusing because the report does not give the absolute numbers of assaults. The report is in average assaults per day. The average of 5 is given for assault on a wife on SBS; the average for other days is 4.4. I would think that SBS should be compared to all other Sundays, or Saturdays and Sundays, rather than to all other days of the week. Weekends may be significantly different than weekdays for domestic assaults. The BCI itself speculates--no, they call it a "no brainer" according to Reavy--that men drink excessively on SBS and that's why they are more violent on that day. If that were true, by the way, then New Year's Eve should be the most dangerous eve of the year for women, and a close second would be St. Patrick's Day. Yet, I've never heard anyone claim either of those days are particularly dangerous for women. Anyway, if there is any truth to the more alcohol means more domestic violence, I suggest that it's likely men drink more on the weekends than on weekdays--though I have no proof of this, except a few anecdotes, which seems to pass muster often enough in this arena.

Mother's Day is on a Sunday, too, of course, and I think it also should be compared to other Sundays or holidays rather than to all days. It is hard to use the BCI data to compare Mother's Day with SBS because they use different categories. Both use common-law wife and wife, but the SBS data uses 'girlfriend' and the Mother's Day data uses 'mother' as a category.

On SBS there are an average of 5 assaults on the wife; on Mother's day there is an average of 5.8 assaults on the wife. The average day sees 4.4 such assaults. Again, without knowing the absolute numbers of these assaults, which I suspect are fairly low, these differences may be very insignificant. I would not want to conclude from this data that a wife has a 16% greater chance of being assaulted by her husband on Mother's Day than on SBS.

On SBS there is an average of 1.6 assaults on common-law wives; on Mother's Day there is an average of 0.04 assaults on common-law wives. The average day sees 0.06 common-law wives assaulted. Without knowing the absolute numbers, I don't know what to make of this data. I certainly don't think they justify concluding that a common-law wife is 40 times more likely to be assaulted on SBS than on Mother's Day.

According to BCI, 6.8 girlfriends are assaulted on SBS, compared to 3.8 assaults on other days. Again, I'd like to see the SBS stat compared to all other Sundays, or Saturdays and Sundays. I'd also like to know what the absolute numbers were so I could better judge whether this difference is significant.

BCI tells us that a mother is three times more likely to be assaulted on Mother's Day as on any other day of the year. Of course, men may be three times more likely to be with their mother on mother's day than on any other given day. On the average day, a mother is no more likely to be assaulted than a common-law wife (0.06 per day). But on Mother's day men must leave their common-law wives to go assault their mothers; for, the assault rate goes down for common-law wives on Mother's Day.

By the way, BCI doesn't blame alcohol for the violence on Mother's Day. It is "tension" and "stress" due to "dealing with split families or divorce situations," according to Rob Hall, a police detective.* I wonder if he knows this "intuitively." He may also be the one who said, "It's a good thing Superbowl Sunday isn't on Mother's Day." I wonder if this study was done during a 3-day full moon.

August 13, 2001. Last night, while channel surfing the wasteland of cable television, I was rewarded by Black Entertainment Television (BET) and MSNBC. The former featured Peter Popoff and his wife giving away holy water from Russia in exchange for personal information on how to contact you. They were doing the faith healing shtick exposed by James Randi years ago.

In 1986 [Randi] exposed Peter Popoff, a TV evangelist with self-proclaimed divine powers. With help from volunteers, a video camera, and a radio scanner, he showed the world that Popoff's "power" was actually nothing more than a miniature receiver hidden in his ear, through which he received instructions from his wife Elizabeth backstage, who had previously pumped chosen members of the audience for information.*

Popoff calls [Randi a false prophet](#) and a deceiver and justifies his continued fakery by claiming that "Thousands upon thousands of people around the world have found Jesus Christ through this ministry." Despite Popoff's obvious fraud, no charges have

ever been brought against him, which is rather typical in this country. So-called "faith healers" have been given a free ticket by law enforcement to bilk anybody in the name of Jesus. The only other group that enjoys such special treatment in this country are the telepsychics like [Miss Cleo](#). Ordinary "psychics" who practice the fine art of grifting are often arrested for conning gullible people out of their jewelry or life savings.

The other reward I got last night was a re-run (4th or 5th time) by MSNBC of their program on [exorcists](#), featuring [Tom Brown](#) and [Bob Larson](#). Their game is to bring troubled people together and look for demons that are causing the trouble so they can exorcize them. MSNBC, in an effort to discourage people from trying this at home, slipped in a couple of clips of people being arrested for botched exorcisms in which they have done such things as smothered children and beaten women to death--in Jesus' name, of course. Brown and Larson have never killed anyone, as far as we know, but whether they help or harm people was not possible to discern from the program, since the "reporters" did no background checks or follow-ups on the people exorcised. They could have been mentally ill, actors, mentally ill actors, drug addicts, mentally ill drug addicts, or they may have been possessed, as the exorcists claimed. All the participants shown being exorcized seem to have seen the movie [The Exorcist](#) or one of the sequels. They all fell into the role of husky voiced Satan speaking from the depths featured in the film. But wouldn't a real journalist get a second opinion? Why should we take the word of interested parties like Brown and Larson that their subjects really were possessed and that they really released [Satan](#) from all these bodies? They might tend to be [self-deceived](#) and be guilty of [confirmation bias](#).

Those attending the exorcism sessions of Brown and Larson seemed a very sorry lot, indeed. Even sorer than those teary-eyed hand-clappers encouraging Peter and Elizabeth Popoff. These are desperate people and one can only wonder what stormy seas set them adrift and brought them to port at the feet of these snarling, drooling faith healers and exorcists. Such pitiful creatures nevertheless always seem to find [a receptive audience who believe they are witnessing miracles](#). I'm shocked that anyone would find the MSNBC program to be an "in-depth documentary" as one viewer thought. The program was superficial, shallow, and apparently produced by cynical people who think viewers can't handle the truth. No effort was made to find out what the truth might be. Instead of investigating those allegedly exorcized, MSNB just re-runs the original program.

further reading

- [Randi, James. *The Faith Healers* \(Buffalo, N.Y.: Prometheus Books, 1987\).](#)
- [Spanos, Nicholas P. *Multiple Identities and False Memories: A Sociocognitive Perspective* \(Washington, D.C.: American Psychological Association, 1996\).](#)
- [televangelist quiz](#)
- [A Kinder, Gentler Satan](#) by D. Trull

- [Esophagus Exorcism!](#)
- ["Woman Admits Guilt in Exorcism Death"](#)
- [The Haunted Boy: the Facts Behind the Story that Inspired "The Exorcist"](#) by Mark Opsasnick

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reader comments:

Nostradamus

18 Jan 2000

To the esteemed professor of Sacramento City College, Mr. Robert Todd Carroll

Dear Sir!

I'm a swedish surfer who's just visited the Nostradamus page of your "sceptical" website, but I can't say I was rather impressed.

reply: You're not trying to butter me up, are you, so I won't try to squash you like a worm for disagreeing with me?

The sample quatrain (X,72) has "angelmois" [sic] (actually it's Angolmois) translated as "mongol" when it's obvious that what is meant in modern French is "angoumois" i.e. "from Angoulême" (look it up in a dictionary if you like!).

reply: That is what makes it so difficult to translate Nostradamus: you never know what version of French he is anticipating...until, of course a Swedish surfer comes along and sets you straight.

Consequently there's no "king of the mongols" who will rise from the dead. The concept of an undead Djingis Khan is also very unlike Nostradamus, whose 'visions' as rule carries a very ordinary type of content, so I simply don't understand where you got this hideous interpretation from.

reply: Actually, I haven't found any other versions, except for one that translated "le grand Roy d'Angolmois" as [Ghengis Khan](#), which I thought was a bit liberal.

Do you really think it is good debunking to make a poor mock of this fellow? Also, I'm not sure about the date presented. In my Swedish translation of Nostradamus (ed. Åke Ohlmarks, Stockholm, 1961) which claims to be based on the Rigaud edition of 1566, July 1990 and not 1999 is referred to. Anyhow, what ever is the correct one, the obvious interpretation I think would be that someone bound for greatness is meant to be born this year, ("from heaven will come [a] terrible king") re-evoking the spirit of "the great king of Angoulême" ("résurrection" of course also has a figurative meaning).

reply: Thanks for straightening that out. Someone bound for greatness was born in either 1990 or 1999. I think most of us equate falling from the sky with being born, too.

Interestingly enough, there has actually existed a certain Louis Antoine de Bourbon, duke of Angoulême (1775-1844) who was the eldest son of Charles X and though childless, the true heir to the French throne (which was instead taken over by Louis Philippe). He was also great hero of the counter-revolution, at times referring to himself as "Louis XIX". Not in the least trying to prove Nostradamus to 'be right', I find it nevertheless lamentable, if not to say embarrassing, to see a homepage dedicated to enlightenment, revert to such a simplistic explanation as of something literally 'falling out of the sky'. It makes for a prejudicial understanding of Nostradamus and the learning of his milieu.

reply: Yes, it is true. I do tend to take things too literally, especially when I am learning a milieu. But do you really think it is less prejudicial to give free reign to the imagination to interpret words any way we wish? In any case, I think you missed your calling; you've stumbled upon Nostradamus' prediction of the invention of bourbon.

Finally on the question of "Mars", Nostradamus is known more or less to use planetary constellations solely as a shrouded way of telling the time. The story goes he might not even have believed in astrology.

reply: Excellent.

I'm not certain of the significance of 'the reign of Mars' in this particular quatrain, but surely it has nothing to do with either warfare, Armageddon or anything likewise.

**Respectfully,
Apostata**

reply: Truer words n'er were spoke by prophet nor profiteer.

04 Dec 1999

One thing the Nostradamus cultists seem to have forgotten is that Nostradamus also made his "predictions" under the Julian calendar rather than the Gregorian calendar and that also would put a few massive holes into the veracity of the predictions as well.

Robert Hart

reply: You are correct. Nostradamus died in 1566 and the Gregorian calendar didn't come into use until 1582. Unfortunately, you cannot win

this one, Robert. The cultists will claim that Nostradamus had so much foresight that he foresaw that a new calendar would be put to use, so he made his predictions accordingly.

06 Dec 1999

Further to Mr. Robert Hart's comment of 4/12/99, and your subsequent reply, the Gregorian calendar only makes a change of two weeks. The famous prediction

"L'an mil neuf cens nonante neuf sept mois
Du ciel viendra grand Roy deffraieur
Resusciter le grand Roy d'Angolmois.
Avant apres Mars regner par bon heur.

The year 1999 seven months
From the sky will come the great King of Terror.
To resuscitate the great king of the Mongols.
Before and after Mars reigns by good luck."

is thus still nonsense, since July, the seventh month, is still well passed by the reckonings of both calendars.

And while on this subject, "deffraieur" is not the same as "d'effraieur" meaning "of terror" but rather means "defrayer" as in a payer of debts. I have no idea why this is supposed to bring about the end of the world. The apostrophe is usually added by believers in Nosty.

Keep up the good work,
Daniel Ucko

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- [Piltdown Hoax](#)
- [The Philadelphia Experiment](#)
- [The Protocols of the Elders of Zion](#)
- [pyramid schemes, chain letters, & Ponzi schemes](#)
- [The Quadro Tracker](#)
- [Raël and the Raélians](#)
- [Rama](#)
- [Ramtha](#)
- [Catalina Rivas](#)
- [Sai Baba](#)
- [shroud of Turin](#)
- [the Sokal hoax](#)
- [Urantia Book](#)
- [Van Praagh, James](#)

Other Sources

- [Urban Legends Reference Pages](#) snopes.com
- [Museum of Hoaxes](#)
- [Chuck Whitlock](#)
- [Cliff Pickover's Internet Encyclopedia of Hoaxes](#)
- [Scams](#)
- [CNET's favorite Net Hoaxes](#)
- [Dr. D. Bunk's E-Hoax archive](#)
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- [TruthorFiction.com](#)
- [Federal Trade Commission Home Page](#)
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- [What's Wrong with Multi-level Marketing?](#)
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- [New "Shroud" Claims Challenged as Spurious](#)
- ["The Serpent's" Tale](#) by Kurt W. Burchfiel (*Strange Magazine*)
- [The IdChip spoof](#)
- [Computer Virus hoaxes](#)
- [Fairy Tale An Untrue Story Fairy Photographs, Piltdown Man, and Faked Vermeer Paintings The Debunking of Three Hoaxes](#) by James Opie
- [It's a Fake!](#) by Lee Moller
- [Rich Dad, Poor Dad](#)

Recommended Reading

[Brugioni, Dino A. *Photo Fakery : The History and Techniques of Photographic Deception and Manipulation* \(Brassey's Inc., 1999\)](#)

[Feder, Kenneth L. *Frauds, Mysteries and Myths: Science and Pseudoscience in Archaeology* 3rd ed. \(Mountain View, California: Mayfield Publishing Co., 1998\).](#)

[Keene, M. Lamar. *The Psychic Mafia* \(Prometheus, 1997\).](#)

[McCoy, Bob. *Quack! : Tales of Medical Fraud from the Museum of Questionable Medical Devices* \(Santa Monica Press, 2000\).](#)

[Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural*, \(N.Y.: St. Martin's Press, 1995\)](#)

[Randi, James. *The Faith Healers* \(Buffalo, N.Y.: Prometheus Books, 1987\).](#)

[Randi, James. *Flim-Flam!* \(Buffalo, New York: Prometheus Books, 1982\)](#)

[Randi, James. *The Truth about Uri Geller*, \(Buffalo, NY: Prometheus Books, 1982\)](#)

[Stein, Gordon. *Encyclopedia of Hoaxes* \(Prometheus, 1993\).](#)

[Steiner, Robert A. *Don't Get Taken: Bunco & Bunkum Exposed - How to Protect Yourself* \(Wide-A-Wake Books, 1989\).](#)

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Last updated 03/09/03



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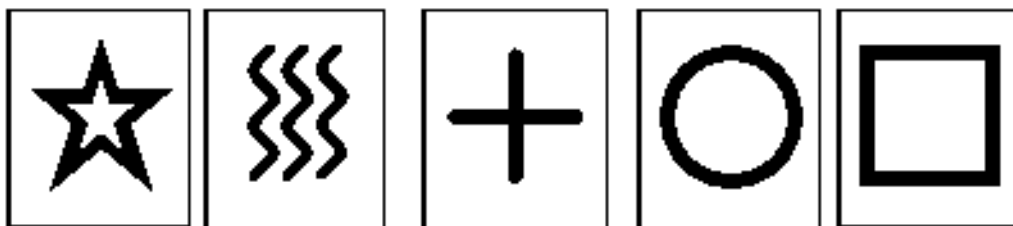


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Zener cards



Zener cards are used by some [parapsychologists](#) to test [psychic](#) ability. There are five kinds of card: a star, three vertical wavy lines, a plus sign, a circle and a square. A deck of Zener cards consists of five of each symbol. The cards might be shuffled and the subject then tries to guess the order of the cards. Or a sender might look at a card and then try to [telepathically](#) communicate the perception to a receiver.

Since there are twenty-five cards in the deck and five kinds of card, there is a one in five chance (or 20% chance) that any given card is on top of the deck or being viewed by a sender. A correct "guess" is called a "hit". Anything significantly higher than 20% hits in the long run would indicate that something other than chance is at work. In the short run, higher percentages are expected by chance. Thus, if you get nine out of twenty-five correct (36%), that would NOT be statistically significant. If you got 36% correct over 100 trials through the deck, that *would be* statistically significant and would indicate that something else besides chance is going on. Maybe you're psychic, maybe you are unconsciously picking up cues, or maybe you're cheating!

[Try it.](#)

See related entries on [parapsychology](#), [psi psychics](#) and [telepathy](#).

- [How NOT to test your psychic ability](#) (it is essential that a large number of trials be done to get statistically significant results)





rods

Rods are insects caught in the act of flying by a video camera. Some [hoaxers or very imaginative people](#) have been maintaining that rods are actually some sort of [unknown life form of alien origin](#). But, according to Doug Yanega of the Entomology Department at the University of California at Riverside and a member of the Straight Dope Science Advisory Board, rods are

a videographic artifact based on the frame capture rate of the videocam versus the wingbeat frequency of the insects. Essentially what you see is several wingbeat cycles of the insect on each frame of the video, creating the illusion of a "rod" with bulges along its length. The blurred body of the insect as it moves forward forms the "rod," and the oscillation of the wings up and down form the bulges. Anyone with a video camera can duplicate the effect, if you shoot enough footage of flying insects from the right distance.*

Rods seem to be a favorite topic of [UFO and cryptozoology buffs](#). One of the more outspoken defenders of rods as aliens is [Jose Escamilla](#), host of the RoswellRods.com web site. Jose has even brought his story and films to The Learning Channel. Some hilarious photographs of "rods" have been posted on the Internet at the Escamilla site. My favorite is "[the swallow chases a rod](#)" which looks just like a bird going after an insect.

further reading

- [Psychic Vibrations](#) by Robert Schaeffer





reader comments:

Wilhelm Reich & orgone energy

13 Apr 2000

I stumbled onto your site accidentally, looking for web pages concerning Orgone energy. I have done research into the truth of Orgone energy for 3 years now, and I must say it has a definite scientific basis. Although I was a bit perturbed at the tone your entry on Orgonomy took, being that it was overwhelmingly bitter and sarcastic, I assumed that it was well founded. Honestly, when someone first tried to talk to me about Orgone, I believed he was an idiot. Not so now. I can say, with 100% certainty, that, while much of Reich's work was incomplete and shoddy, it had more to do with lack of funding and equipment than any maliciousness or unsound thinking on his part. The concept of Orgone is a viable one, as I have seen it at work. One thing I would suggest you look into: A book called "Right Where You Are Sitting Now" by Robert Anton Wilson. One chapter is devoted to the vehemence with which "pseudoscience" is attacked by established beliefs, often on no other grounds than it doesn't fit in with accepted belief. I truly recommend reading that chapter, as it was the only truly interesting thing in the book.

John Gregory

reply: 100% certainty? How can I quarrel with that or [Robert Anton Wilson](#)?

9 Jun 1999

Dear bogus skeptic:

You have expressed your skepticism on the "orgone shooter" based on the following statement "The Food and Drug Administration not only declared that there is no such thing as orgone energy... "

Oh, I'm sure you're not referring to the same FDA that said that Cannabis Sativa, an herb used for healing for 5000 years, had no healing properties...and recently had to swallow its words...

For a skeptic, you sure are a sucker for anything that has the government-approval label on it.

Best regards,

A real skeptic (loosely translated as "whatever works, not what I think it's politically correct and MUST work...)

reply: I gave a few other reasons for being skeptical of the orgone shooter, but I suspect your affection for cannabis may have affected your ability to pay attention to them.

It may surprise you, but not all government officials are morons. I realize that some people assume that if the government says it is bad or useless, then it must be really good, especially if it relates to one's favorite recreational drug. However, this is not a very wise rule to live by, even for "real skeptics."

Aug 26 1998

Although James DeMeo's organization is the most vocal proponent of Reich's ideas, it's not the only one.

The medical and psycho-therapeutic side of Wilhelm Reich's alleged discoveries are promulgated most strongly by a much more conservative group called ["The American College of Orgonomy."](#) They primarily train psychiatrists in the use of Reich's character-analysis and in his more, ahem, esoteric techniques (some of which bear a strong resemblance to [Rolfing](#), although Reich developed his trick of "attacking the muscular armor" in the 1940s). In order to get the American College of Orgonomy's seal of approval, a therapist must first go through the therapy himself at least until he reaches the stage where he experiences "orgonotic streamings".

The American College of Orgonomy is nowhere nearly as evangelical as DeMeo's Orgone Biophysical Lab, and in fact goes out of its way to distance itself from DeMeo.

Roger M. Wilcox

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[ouija board](#)

reader comments:

ouija board

23 Mar 2000

You say "the Ouija board is used in divination and spiritualism". In junior high school I found another use for the board: seduction. There you are in a dimly lit room with her hand on the planchette and your hand over hers. Why it's almost like holding hands! Then the final questions always seemed to be "should we neck?" And the answer was always "YES". I guarantee that it was not me moving the planchette at least some of the time.

Tim Boettcher

24 Mar 2000

Many years ago, I remember an "article" in MAD Magazine entitled "Things you never hear people say" or something like that.

The only one I remember was, "If there really is an afterlife, I'll bet the best way to contact it is through a plastic, mass-produced board game from Milton Bradley!"

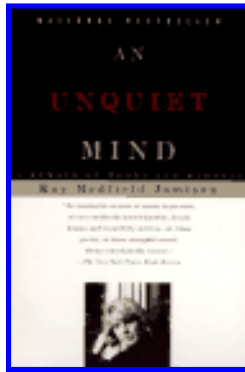
Russell Glasser

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An Unquiet Mind

A Memoir of Moods and Madness

by **Kay Redfield Jamison**
(New York: **Vintage Books**, 1997)
first published by Knopf in 1995

"Manic depression distorts moods and thoughts, incites dreadful behaviors, destroys the basis of rational thought, and too often erodes the desire and will to live."

It must have come as quite a shock to her patients to be told by their therapist that she had been suffering from manic depression herself for over thirty years. Perhaps an even greater shock was felt by many of her colleagues, since Dr. Jamison is one of the leading scholars and authorities on manic depression. The general public, being generally ignorant of mental illness and kept that way by mass media emphasis on sex and violence, probably won't read the book, but if they did there would be the danger that it would feed the stereotype of the therapist as loon. As it is, the book will probably be read mostly by those in the mental health professions, mentally ill patients and their loved ones. If a film is ever made which is true to Jamison's life, it would be one of those rare films which does not depict a mentally ill person as a troubled artist, mass murderer, brilliant criminal, amusing rebel, blathering idiot, drug addict or alcoholic. Even so, such a film would still be misleading, as is Jamison's book and her emphasis on the relationship of madness and creative genius. This is a favorite topic of hers. (See her [*Touched With Fire: Manic Depressive Illness and the Artistic Temperament.*](#))

The book begins brilliantly with a metaphor for her illness taken from an actual experience: a child witness to an Air Force plane leaving its defiant flight against the gravity of earth and diving from the beautiful sky past a schoolyard full of playful innocents into the woods, leaving behind nothing but vapors in the sky and ashes on the ground. The book then moves rapidly, somewhat clinically if poetically and literately, through the stages of the author's life, her lifelong battle with her illness and her emergence as a mentally ill person with a Ph.D. in psychology, co-author of a standard text book on manic depression, recognized scholar in the academic world, and tenured professor at Johns Hopkins University. Jamison emerges from her struggles with manic depression as a woman with a love of the arts and poetry, with more than a fair share of romantic liaisons, and a marriage now

going into its second decade. In short, the book should give hope to those who suffer from a similar neurochemical dysfunction; for, she has shown that it is possible to live a good life despite being mentally ill. She makes it clear that this is possible only because she takes her medicine (lithium) and goes to therapy. Unfortunately and disappointingly, she does not describe what kind of therapy she has undergone. Perhaps she will write another popular book whose focus is on the various therapies which have been scientifically examined and which have been proven effective, along with pharmacological treatment, for various forms of mental illness.

Manic depression is a horrible disease. The horrors of years spent wishing you were dead, incapable of getting out of bed or reading a newspaper, of withdrawal from friends and family, of fear of meeting anyone, and of trying to kill yourself, are documented, as are the years of euphoric sexual energy, creativity, productivity, wild spending sprees, of friends and family withdrawing from you, of inexpressible joy at feeling high and mighty, consumed by incomprehensible thoughts and doomed to absurd behavior. The disease controls your thoughts and actions: you are not a person who is free to think and do as you wish and in accord with your talents. But with medication and therapy, a good deal of control over your life is possible. Yet, one of the great fears of many manic-depressives is that drugs will control them (or others will use drugs to control them) and therapy will brainwash them (forcing them to fit some mold of the "normal" person). With treatment from the right kind of physician and therapist, these fears are unwarranted. Good medicine and good therapy can give a person control over his or her life, not take it away. Of all Jamison's messages, I think this is the most important one.

The internal horror of mental illness experienced by the ill person cannot be equaled by the external horror experienced by family, friends, lovers and any unfortunate strangers who happen to be in the wrong place at the wrong time. Still, the harm done to those close to the mentally ill is measurable and is very large. Jamison describes the suicide watches put on her. Several lives must have been consumed by the fear that she would kill herself. She mentions their love and concern with affection, but I wonder if she can know the Hell she put them through any more than they could know her kind of Hell.

With mania there are other problems, such as feelings of persecution, indiscreet sexual behavior, spending sprees and risky investments, racing thoughts and rapid speech, sleeplessness but still maintaining boundless energy, inflated and unrealistic feelings of power or capacity for achievement, feelings of special communications from God or the dead, and, in some cases, psychotic symptoms such as hallucinations and delusions. (Delusion is defined by mental health people as being a false belief which can't be changed by argument or evidence.) Jamison describes in general terms the euphoria she feels while manic, a euphoria comparable to a cocaine high and apparently just as addictive. She describes in general terms that her behavior caused others a great deal of trouble, but she does not begin to give the reader a sense of what it must be like to love as a sister, friend or lover someone who

is very bright but has lost any semblance of good sense or judgment. Jamison's spending sprees did not make her homeless. She has a brother who mopped up after her manic episodes, loaned her money and enabled her to maintain her wealth. A manic spending spree by a less educated and poorer manic-depressive can wipe out a lifetime of accumulated wealth in a few weeks. The mental health system seems to be designed to make sure nobody interferes with the patient's right to go bankrupt and become homeless.

Because of the tireless work of the American Civil Liberties Union and individual messiahs such as Thomas Szasz, the legal system in California (where Jamison had her first major breakdown) makes sure that the patient is protected from meddling and greedy family members, friends and loved ones. The mental health system seems to have been designed by lawyers for lawyers. The social context of mental illness is ignored in favor of protecting individual rights. The patient determines whether she wants treatment, even though she may be incapable of making a good judgment about mundane matters. The patient determines whether the doctor can talk to any family member or friend about the patient, even though she may be incapable of telling the truth to the doctor as to what exactly has been going on in her life. A family member who gets a call from a merchant saying he is going to the district attorney with felony charges against a relative for passing a \$10,000 bad check during a spending spree cannot even talk to the patient's doctor about it, unless the patient gives permission. Often, the paranoid delusions that accompany extreme mania preclude the patient from trusting her most trustworthy friends and family members. The patient determines whether she talks to anyone. The patient decides whether anyone is notified about her condition or when she will be discharged from the hospital. If you want to know about a loved one who is being treated for mental illness, you will have to read about it in the papers. As one psychiatrist I know put it: *the patient has the right to die with her rights on*. The patient's right to be protected from evil relatives has been the paradigm for creating mental health law. The one right which has been ignored by the lawmakers and defenders of patient rights is *the right to proper treatment*. Proper treatment requires knowledge of the patient's past behavior and good judgment on the part of mental health professionals regarding how much to involve family and friends in getting information helpful in making the diagnosis. Confidentiality laws, however well-intentioned, are often a major hindrance to proper treatment.

Jamison touches on these issues but she does not give the reader the sense that she fully appreciates the Hell she has put others through. Intellectually, she clearly understands how she has harmed others, and she expresses concern for them, but it is apparent that she is her own main concern. Her egocentrism and vanity may be survival defense mechanisms or they may be manifestations of her illness. In any case, these traits are not very charming or endearing, but they do not interfere with her ability to describe manic depression from the inside and give hope for a good life to those who suffer the same *rotten luck*, as one of her paramours put it..

Jamison does not pretend that manic depression can be cured or that the manic-depressive can become relieved of all symptoms once and for all by some sort of magic cocktail of drugs and therapy. There is no magic to be worked here. It is all hard work, constant struggle, battling the demons within and the ignorant and unsympathetic without. Feelings of guilt for thinking and acting as you do, even though your thoughts and actions are mainly determined by your brain chemistry, are hard to overcome. Dealing with the blame others put on you for the thoughts and actions you cannot control is very hard. When a friend and colleague, a psychiatrist, tells you that he is "*deeply disappointed*" in you for having attempted to kill yourself, you realize how deep the ignorance runs in our society. It is not just those whose highest cultural endeavor is listening to talk radio or TV who are without knowledge; it is often the professionals themselves who demonstrate the most ignorance, the ones who are supposed to know and understand better than the rest of us just what mental illness is and how to treat persons with brain diseases. Books such as Jamison's are essential to overcoming this almost total ignorance regarding mental illness. Only those who have been to Hell know what Hell is like. If you needed a road map to escape from Hell, who would you buy it from? From one who lives there or from one who has read about it in his study in north Paradise?

Manic depression is a disease which is biological in its origins. There is also strong evidence that there is a genetic basis for the illness. There is also evidence that lithium, the most common drug used in treatment for the disease, can cause birth defects. Think of the complications this means for a woman who wants to have children. If I go off the drug and get pregnant, what will happen if I have a manic episode during the pregnancy? If I stay on the drug while pregnant, what will happen if my fetus is adversely affected? If I have a child, will the child be manic depressive? What kind of mother can I be if I am ill? Eventually, perhaps another question will be askable: if a genetic test indicates my fetus has the gene for manic depression, should I abort? Add to these dilemmas, the comment of a psychiatrist who tells you that you should not even *think* about having children and you have a blueprint for a condo in Hell.

Hell is fueled not only by the fire in the brain. Jamison herself was the child of a mentally ill father, one who functioned quite well for many years before becoming hopelessly mad. Not only would Jamison not exist if her father had taken the advice of this psychiatrist, but the world would be a much duller place, less creative and diverse, certainly the worse for it if the mentally ill did not reproduce. The desire for a "pure" race of balanced brains is a vision of Lilliputian proportions, worthy of a small mind living in small, tidy, dull world. It does not take long to whip up [a list of great artists, poets, writers, athletes, etc.](#) who have suffered from neurochemical dysfunction. It is obvious that the species and human culture have benefited from the mentally ill and their progeny. To suggest that anyone with a neurochemical dysfunction should not even *think* of having children is an idea so preposterous as to deserve laughter rather than the rage it is likely to evoke from a mentally ill

woman of Jamison's character and disposition. Who knows what great achievements would not have been conceived much less attempted but for mania? And who knows what foolish endeavors have been avoided because of the depression of world leaders? What would our libraries and museums look like if we removed everything created by a mentally ill person or the descendent of a mentally ill person? But while laughing at the suggestion that we should practice eugenics with the mentally ill, we should not get so carried away as to think that somehow having a neurochemical problem is a ticket to creativity or genius. Even if it were, the pain and suffering that accompany the diseases of the brain would not justify a policy of breeding creative geniuses.

The reason it is easy to come up with a list of great insane people is probably not because the genes which are major causal factors in neurochemical problems are also the genes which are the major causal factors in creativity or intelligence. The reason is much more mundane. There are lots of famous people and there are lots of people with neurochemical problems; that the two lists should overlap a great number of times is to be expected. The vast majority of the mentally ill are probably of ordinary intelligence and creativity. We never hear of them because they are not eloquent, do not create great works of art, etc. We only hear about mental illness from eloquent people: either the highly educated professionals who care for them or the highly articulate and creative ones among them, or, as in Dr. Jamison's case, both. Studies which claim there are a disproportionate number of poets, artists, composers, etc., who suffered from depression or manic depression may be accurate, though it is difficult to establish just what percentage of any population is "mentally ill." Also, I don't know how many poets would appreciate being told that their affinity for alliterative allusions may be due to a neurotransmitter malfunction.

Many of the "ordinary" mentally ill persons roam our streets and sleep in ditches. They scavenge the trash bins in our cities and towns. Some of them have children and it is monstrous to suggest that none of these people should have been born or given birth. The shame on humanity is not from its mentally ill, but from the rest of us because of the way we treat them...or rather because of the way we *mistreat* or *fail to treat* the less fortunate among us. But the lack of proper treatment for a large percentage of the mentally ill is a social problem and is not Jamison's area of specialization. Clinical problems, however, are her specialty.

The main clinical problem with manic depression is not that it can't be treated effectively with drugs and therapy, but that many patients don't take their medications and many others don't seek treatment. The latter is due to ignorance, "poor medical advice, stigma, or fear of personal and professional reprisals." The former is due to a combination of several factors. Often there is knowledge that drugs are used to make people docile and easy to handle in institutions. Drugs have sometimes aggravated mental illness and done irreparable damage. There is knowledge that drugs might take an edge off

one's intelligence and memory, as well as diminish physical coordination. Medicine often has painful and annoying physical side effects. When medicine works and one is feeling good, one often quits the medicine because one comes to believe medicine is no longer necessary. Medicine prevents the euphoria and burst of creative energy of manic episodes, which are extremely pleasant and addictive. There is a cultural taboo against using drugs, as well as a cultural stereotyping of people as weak and lacking character if they cannot solve their own problems by determination and guts. Anyone should be able to control their thoughts and actions by an act of will. In short, there are numerous personal, social and cultural hindrances to proper treatment of manic depression. These hindrances often outweigh the knowledge that there is hope for the manic depressive through proper medication and therapy. Jamison should know. Even though she is an expert in the field, it took a near death experience (not the mystical kind, but the kind caused by intentionally taking an overdose of lithium), to awaken her to the fact that though she hated taking lithium, the alternative was worse.

Jamison is a survivor, literally. If we are to believe her, she is much more. She had several love affairs of romantic novel proportions and all of them with brilliant psychiatrists. She has a Ph.D. in psychology yet is a "professor of psychiatry." She is not medically trained, but she has been so extraordinary that she has been put in charge of medical facilities. And when she has been wronged, it was never trivial but monumental. She loves poetry and is fond of sprinkling literary quotes throughout her book. She obviously likes to drop names and present herself as a very important person. There isn't a murmur of humility which comes through as one reads her unquiet memoir. In short, her account comes across as a very honest description of a manic depressive.

In conclusion, the reader might wonder why I have not used the American Psychiatric Association's preferred moniker of "bipolar disorder." Dr. Jamison's book is not a *memoir of moods and bipolar disorder*. Jamison prefers the term "madness" to bipolar and I don't blame her. 'Bipolar' is very clean and impersonal. It is useful mainly for diagnostic classification. (Jamison describes herself in DSMV-IV terms as having ***bipolar I disorder; recurrent, severe with psychotic features, full interepisode recovery***. DSMV-IV is the 4th edition of the American Psychiatric Association's *Diagnostic and Statistical Manual*.) Imagine your physician telling you that you have "oncology disorder B-6" rather than breast cancer. I don't like 'madness' or 'manic depression' very much either. I prefer 'neurochemical dysfunction', 'neurochemical imbalance' or 'neurophysical damage', or even 'brain disorder'. Such terms are not very descriptive and they are very vague, but they do not imply that there is a single cause which gives rise to all forms of the disease. 'Manic depression' or 'melancholia' call attention to the behavior of the ill person and may encourage the belief that the ill person is not ill but needs a good laugh, a good kick in the butt or some serious jail time. Such responses to the mentally ill are too typical and indicate a profound and pathological type of ignorance. Being ignorant is a condition a person can remedy by an act of will to study the issue. Being controlled by a dysfunctioning brain is

not.



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Last updated 12/30/01



[The Skeptic's Refuge](#)



reader comments:

out-of-body experiences

30 Nov 2000

Hello, First of all you have an awesome website, it's amazing how much people allow themselves to be diluted [deluded?] by things they wish were true.

There is something I heard that is pretty interesting about how people who have near death or "life after death" experiences that think they see a "white tunnel of light to heaven." A professor at USC told me that people see that when there is a lack of oxygen to the visual cortex (V1). The fovea, or center of our vision corresponds to the neurons in the visual cortex closest to the spinal cord. As you move out towards the peripheral of our visual fields, so move the corresponding neurons out towards the edges of the visual cortex. So when the brain is deprived of oxygen, the outside neurons "turn off" or go black first. The "dying" patient experiences a blackness encroaching upon his visual field that starts at the edges and contracts towards the center of the vision. It's not so much a white tunnel, but a black surrounding area. There is also weird stuff going on with perceived contrast, and the dilation of the pupils, so instead of seeing the ceiling of the operating room, you might just see bright, white light, surrounded by darkness. Essentially you get tunnel vision, in high contrast. My professor suggested this as an explanation for why people report that they flew into a tunnel of white light. This is only his theory, but he is a professor of neurobiology at USC.

I think the scientific explanations for things are almost always much cooler than the mystical and magical ones.

Chris Sowick

6 Apr 2000

I read the reader comments about OBE, and I wanted to add something...

When I was rather young (about 5 years old, I'm guessing), I had the same physical experiences that another reader mentioned: physical paralysis, electrical tingling, loud, high-pitched rushing/humming sound, sensation of weightlessness... I had no idea that they were supposedly related to out-of-body experiences until 10 to 15 years later when I read a book on the subject that mentioned when you have those sensations, you're very close to dissociating.

The only other time I've had those sensations again was just a few years ago when I dreamed I had an out-of-body experience. As soon as it started occurring in the dream, I became completely conscious and had those strange sensations again. When I was young, it scared me quite badly and it happened fairly frequently. I never "left my body" or had an experience of another entity being present. (I completely understand, though, why people who don't know better might think aliens or demons are involved.) As far as I know, those sensations merely result from a slight glitch in the mechanism that disconnects your brain from the rest of your body when you fall asleep. If you are not unconscious when it happens, you have some really odd sensory information (or a lack thereof) to deal with. This neural disconnection is what results in those strange sensations.

Something I would like to see mentioned is the supposed gathering of information by people during an OBE that they could not have otherwise known.

*Thank you for maintaining such a fantastic sceptical resource! It's too bad healthy scepticism doesn't spread like scientific ignorance does (check out <http://www.alexchiu.com/> for complete details on how to live forever! *ha*).*

Donald Wilson

reply: Mr. Chiu sells magnetic finger and toe rings that allegedly make one immortal. He claims "the fingers and toes are the negative (-) and positive (+) terminals of your body. When placing the magnetic devices, the magnetic pole on the right side of the human body is opposite to the left side. With a opposite pole on each side of the human body, blood circulation and electric current of the body are enhanced. The enhanced blood circulation and electric current increase metabolism in order to fight the aging process." Last August, I wrote him and asked: "If I go to Brazil or New Zealand in the southern hemisphere, will I need to repolarize my rings to account for the different pull on my cells in other side of the world? Or do I just put the left hand ring on the right hand and vice versa?"

Someone named Richard wrote back for Alex and told me "You wear the rings the same way everywhere in the world." I figure that this answer got me as close as I'll ever get to an out-of-body experience.

05 Nov 1998

Being a skeptic myself, I loved reading through your no-nonsense articles. But when I got to the section on OBEs, I noticed that you left quite a bit of really interesting info out. Perhaps you haven't fully researched the subject.

A lot of people commonly regard OBEs as purely mental experiences.

"Hmmm... the book told me to sit in lotus position, forget about my body, and visualize flight... yeah, this is sort of nice."

Any real research into OBEs would have dug up a whole list of violent PHYSICAL symptoms that occur before going "out of body". They include:

- The sensation of weightlessness*
- Feeling like your body is shaking uncontrollably, as if with a seizure or extreme hunger*
- Hearing loud, insistent noises such as the rumbling of freight trains, or gunshots, directly between your ears*
- Feeling a painless, undeniable shocking sensation, as if your entire body has just completed a huge, powerful electric circuit, that lasts for minutes at a time*

Can I give you any sources? No, since I did all my research at least a year ago. But these symptoms were reported by almost everyone who claimed to have had an OBE, so it wouldn't be too hard to find now.

Being a skeptic, I assumed that these sensations were all grossly exaggerated feelings (a lightheaded feeling instead of weightlessness, tingling skin instead of electric shock) until I experienced it firsthand. Then again the next day, the next, and the next.

*I'm still having these sensations on a regular basis. And guess what? I'm still a skeptic. But I'm willing to admit that there must be *something* causing this phenomenon, even if it's only medical. You owe it to your readers to offer more info than you have; otherwise skeptics will continue to regard OBEs as optimistic daydreams; while the people who actually experience them will continue to turn into religious fanatics, having no other explanation.*

Please consider adding more info.

Eris Portiarti

reply: I understand your concern. I picked up a book on OBEs that promised anyone could have one and discovered that daydreaming counts as an out-of-body experience. This is not a well-defined subject area, to say the least. Some of the characteristics you listed have been used to identify alien abductions. Some are clearly related to medical problems. So much that has been written on this subject has been written by New Age dreamers that I think I will leave it up to others to do more research on the subject.

23 Jun 1996

Dear Mr. Carroll,

I have read your material on OBEs with interest. While I make no claims to be a scientist, I have had an unique experience, which I still can not explain. Perhaps it was a dream, a shared dream.

While asleep one evening in 1981, I thought I left my body and traveled to the foot of my mother's bed (110 miles away). My mother was very ill at the time. As I stood at the end of the bed she asked me if I would let her die. I told her, "No. Not unless you let me help you get better." She agreed to those conditions. Then it felt as if I was speeding back to my own bed. I woke up with the feeling that something inexplicable had happened. I woke my wife and told her of my experience. We said nothing more about it.

Six months later my mother came to live with my wife and me. After she had been with us for about a week she told us the strangest story while we were having our morning coffee. It was the same experience that I had had. However, she said that in her -- dream -- I appeared like an angel at the foot of her bed.

She clarified that she had had her experience the same day that I had had mine.

There is no physical proof that I can provide. Unlike some of the authors you have cited I have no reason to make a profit from having had the experience. To my mother, who is now deceased, my wife and me the experience seemed real. I am curious if there is another explanation.

Falko Schilling

reply: It could have been an OBE or a [lucid dream](#), but I doubt it.

For a son to dream about visiting his very ill mother, or a very ill mother to dream about her son visiting her, is not surprising or unusual. That two such dreams occurred on the same night under such circumstances does not seem to require an extraordinary explanation. Your mother was very ill but lived too far away for you to be with her as much as you wanted to. She desired her son to be with her during her time of extreme need. Dreams fulfilling such basic needs and desires are common, not uncommon.

On the other hand, when you say that six months after your dreams she told you that she had "the same experience" on "the same day" that you had your dream, I have to wonder. You guys must keep pretty good diaries to be so precise on the dates. How many people can look back six months and remember what they did on a particular day, much less what they

dreamed? Even so, it would be very unusual if neither you nor your wife had mentioned your dream to your mother between the time you had it and six months later when she came to live with you. You considered it to be a very unusual type of dream and woke your wife to tell her about it. Even if you did not mention the dream to your mother, it is possible that your wife did. Or, maybe you don't even remember mentioning the dream to your mother. We often fill in our memories of events and dreams after the fact and what we remember as having happened or having been in our dream often happened *after* the event or dream occurred.

When you say your mother's experience was the "same" do you mean that her dream was identical to your dream except for the angel bit? (By the way, I'd be honored if my mother dreamed of me as an angel! She must have thought you were a pretty good son.) If her dream had the same dialogue in it as yours, my best guess would be that you or your wife had told her of the dialogue and that what she remembered as her dream was actually what you or your wife had told her of your dream. Wives don't always tell husbands everything. We don't always remember what we said to whom and when we said it. Verification later may be erroneous, yet we take it to be certain. Our subjective certainty in these matters is often so strong as to make us prefer an explanation in terms of OBEs or dream telepathy rather than assume that it is more likely that we have cued each other but don't remember doing so. So-called psychic performers, or mentalists, often amaze people with what they "know" about them, when much of what they "know" was revealed by their subjects. The subjects don't remember revealing information about themselves, even though the time lapse between their revelations and the psychic's "reading their mind" is only a few minutes. (See the entry on [cold reading](#).)

Finally, as to the motivation of those who have strange and seemingly inexplicable experiences, I would note that most similar stories are not told by people who are trying to profit by it. They are truly baffled by what seems to them something beyond co-incidence and they seriously seek an explanation. Even though having a profit motive would be good grounds for being skeptical of such claims, not having a profit motive is not a very significant fact in evaluating the nature of such claims.



[out-of-body experiences](#)

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tachyons and takionics

A tachyon is a [theoretical particle](#) or wave which travels faster than the speed of light. [Tachyons](#) exist in a theoretical world where objects have negative mass and time goes backwards. Tachyon energy is used to scan "subspace", among other things, on the sci-fi fantasy program, Star Trek Voyager. So far, there is no empirical evidence for the existence of tachyons. "If they do exist, tachyons would be extremely difficult to utilize under our current understanding of physics," says NASA scientist Tom Bridgman. Despite being theoretical and, if real, difficult to utilize, and if utilized, of unknown value, tachyons are the main ingredient in a feature line of New Age products that range from beads, belts and shoe inserts, to sweatbands, power pillows, massage oils and vials of tachyon water. And, of course, there are books, such as *Tachyon Energy: A New [Paradigm](#) in [Holistic](#) Healing* by Gabriel Cousens and David Wagner (2000).

A few enterprising New Agers claim that they know tachyons exist and they have harnessed its power. For example, [Fred Pulver](#) who runs the [Carbondale Center for Macrobiotic Studies](#) (formerly known as Biotech Industries of Carbondale Colorado) claims to know that "The Tachyon Field supplies the [energy](#) needs of all living organisms until balance is achieved, then it eases until called upon again. As it is needed, and a depletion occurs, it rushes in until balance is achieved once again."¹ But just in case Nature fails to keep you in tachyon balance, you can get all the tachyon power you need from one of Biotech's swell takionic products. (The reason for the spelling difference has to do with the fact that common words such as 'tachyon' cannot be trademarked and 'tachyonized' was [taken](#). 'Takion' and 'takionic' can be trademarked and thereby used to identify one's products.)

Pulver makes some incredible claims. For example,

Motors have been built which draw upon the Tachyon Field for energy. They exhibit strange behavior, such as increasing in speed the longer they run, even though they are connected to no visible power source.²

Where are these motors? No one has seen them but we are to take it on faith that they exist. Perhaps they are in the vehicles bringing all those [UFOs](#) to earth for the [cattle mutilations](#) and [reproductive experiments](#).

Here's another claim:

Takionic products, with their aligned atomic polarities,

enhance the body's natural ability to draw from the Tachyon Field for its energy needs. Athletes have discovered that Takionic products allow them to perform faster and longer, and shorten recovery time. As conduits for input from the Tachyon Field, Takionic products are proving themselves in the sports performance arena.

Who are these athletes? The same ones who wear magnetic shoes and wear crystals to ward off bad energy?

What is this "Tachyon Field"?

The Tachyon Field is extremely dense. This density cannot be measured because it is a negative state, mirroring the universe of positive density which we inhabit. The theory of negative density is supported by an observable phenomenon: a perpetually expanding physical universe which is brought into being through pressure exerted by expansion of the invisible one. Pressure exerted by the Tachyon Field upon our physical universe indicates the existence of an invisible, highly dense universe, the Tachyon Field.³

The tachyon field may be dense but it would have to go a long way to match the density of an "alternative physicist who finds this stuff compelling. There seems to be something missing here--such as a fundamental grasp of reality. We are asked to believe in an invisible universe causing pressure on ours, thereby forming energy which "cannot be proven by instrumentation currently available" but which we can use to explain just about anything we want.

But wait, there's more!

Tachyon theory is holistic because it accepts the notion of two interdependent universes which are actually indivisible: the visible, sub-light speed universe and an invisible, faster-than-light one. Tachyon theory also substantiates omnipresence, a purely metaphysical concept. God is omnipresent (simultaneously existing everywhere). Omnipresent existence can only occur at faster-than-light speeds, since slower-than-light travel takes time to cross space. Therefore, omnipresence can only be an attribute of a Tachyon Universe where time and space are uniform.⁴

Pulver is also an "alternative" metaphysician! The speculation seems infinite. "The nervous system and brain are nothing but an extremely sophisticated antenna and receiver to absorb, process and transform the resources of the Tachyon Field." "Healers have learned to access the Tachyon Field's

resources for its healing powers more successfully than the average person has."

All the above claims are by way of introduction by their author to the line of [takionic products](#) he has for sale. New Age Energy is especially marketable in alternative health care, where the products to make us healthy and happy are as boundless as the imagination, as endless as New Age Energy itself. (Note: the following are 2002 prices and may not be accurate any more.) There are takionic beads, 10 for \$118.95, which are said to have antennae which "focus the beneficial tachyon energy". There is a takionic belt for \$268.95 which is said to help improve circulation and increase strength.. Takionic water comes in a small vial for \$27.95 and is "pure and cluster-free".

Another New Age business, [Advanced Tachyon Technologies \(ATT\)](#) of Santa Rosa, California, offers a much broader array of products, including some for cats and dogs. ATT has products which can enhance your love-life (including one called panther juice) and your athletic skills, not that the two are mutually exclusive. They have products to ease your pain and improve your brain. They have chakra balancing kits for those who would like a little takionic boost to their meditation. You can purchase a personal tachionized cocoon for \$396 or a Tachyonized Silk Meditation Wrap for \$298 to use while meditating "with your lover before making love."

See **related entries** on [Ayurvedic medicine](#), [chi](#), [energy](#), the [pragmatic fallacy](#), [reiki](#), [therapeutic touch](#), and [transcendental meditation](#).

further reading

[reader comments](#)

- [Reality Check On the Internet](#) by Milton Rothman
- [Pseudoscience on the Internet](#) by Milton Rothman
- [Tom Bridgman of NASA on Tachyons](#)
- [Alternative Medicine and the Laws of Physics](#) by Robert L. Park
- [Particle Data Group](#)
- [The Physics of Negative Mass Tachyons](#)
- [Tachyon Energy \(Advanced Tachyon Technologies\)](#)
- [Takionic.com](#)

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Forward, Robert L. *Future Magic: How Today's Science Fiction Will Become Tomorrow's Reality* (Avon Books, 1988).

[Herbert, Nick. *Faster Than Light: Superluminal Loopholes in Physics* \(Plume Books, 1988\).](#)

[Pickover, Clifford A. *Time: A Traveler's Guide* \(Oxford University Press, 1998\).](#)

[Wall, Ernst L. *The Physics of Tachyons* \(Hadronic Press, 1995\).](#)

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reader comments:

past life regression

28 Mar 1999

Although not a particularly spiritual or religious person myself, I pride myself on being open-minded. I found your dismissal of many ideas to be too simplistic and fairly inaccurate.

reply: Thanks for noticing.

Several friends of mine have gone through past life regressions, a couple of them only having done it out of curiosity, and not one of them reported having been a King, Queen or famous poet. In fact, nearly every one of them reported having had pretty mundane "past lives" such as librarian, housewife, banker, etc. Also, the most notable aspect of the regressions was that each person I knew who had done it came away from the experience in an improved condition. One friend felt he had gained deeper insight into relationship issues with his father, another with his wife. One female friend who had undergone years of psychological care with little result came away a changed woman and discontinued her treatment. Five years later she still appears to be psychologically sound (it's no wonder psychologists want to shut these people down!)

reply: I'm not sure whom you think the psychologists are trying to shut down, but as far as I know many psychologists use past life regression in their therapy. Most of them are probably as impressed as you are with the apparent success of their treatments. There is a danger of [self-deception](#) when one uses [personal validation](#), anecdotes and [testimonials](#) in lieu of [controlled studies](#).

Also, my limited understanding of metaphysics as explained to me by this female friend (now a devout believer) is that [reincarnation](#) is not viewed as a bad thing, or a good thing, just a necessary thing and similar to attaining Nirvana, the evolutionary goal is to reach a point where one no longer has to reincarnate. Personally, I have no particular belief on the subject, no direct personal experience with such phenomena, and my one and only attempt at meditation left me with a headache of epic proportions. However, it bears consideration that ancient worshippers once regarded the sun as a god. Today, no one considers the sun particularly sacred, but that makes it no less real, and no less vital to our existence.

reply: I'm not sure why the sun's importance despite not being regarded as divine bears consideration, but I think it is interesting that [some past life regression therapists](#) do not believe in reincarnation and do not think that their patients need to believe in it either.

Forty-two percent of the world's current population claims to have had some sort of paranormal experience. That kind of eyewitness accounting would put a suspect behind bars in any courtroom, regardless of the absence of physical evidence.

reply: Yes, and therefore fifty-eight percent don't claim to have had a paranormal experience. If more eyewitnesses see nothing, whom should we believe?

You might also consider that science changes its mind far [more] often than spiritual experience does. One can find amazingly similar accounts of near-death experiences, past life remembrances and ghostly sightings throughout history and across cultural lines. Science is constantly disproving itself.

reply: The similarity in accounts can be explained by shared expectations created by shared experiences with books, movies, stories, etc. Changing one's mind when the evidence warrants it is a sign of maturity and intelligence. "A foolish consistency is the hobgoblin of small minds." Ralph Waldo Emerson

If you are questioning such phenomena for the sake of expanding your mental horizons then more power to you. I believe nothing should be taken at face value, even skepticism itself. If you are simply enjoying the role of raining on someone else's mystical parade, it begs the question "Why?" The existence of a spiritual world is the unanswerable question, but if believing in one helps people to live their lives in this world, what possible difference could that make to you? You claim that such "mediums" between this world and the next are simply preying on the credulity of people for profit. Well, I assume all the proceeds from your books are not going directly to the Home for Little Wandering Skeptics. Does that mean you're preying on people's fears for the same reason?

reply: What does it mean to say that "nothing should be taken at face value"? That nothing is as it appears to be? That everything is a matter of taste? That there is no essential difference between truth and falsity? That we should stand by and let frauds work their deceptions because after all one of them might be a true miracle worker?

Why stoop to the ad hominem? I don't begrudge anyone making money, if they do so honestly. And I do not claim that everyone I write about is a fraud preying on the innocent. Many of those I write about truly believe in what they are doing. Many truly believe they have "gifts", ranging from

the "gift" of healing to the "gift" of seeing the future. Should I stand by and say nothing about anything simply because somebody might be benefiting from a delusionary belief?

On the other side, I get many letters thanking me for helping them see things in a different light and for making their lives better.

Another tactic I find interesting is the fact that you consistently use put-downs and condescension when referring to anyone who holds a spiritual belief, a trait I find commonplace among skeptical friends of mine. Yet I almost never encounter that attitude when talking with more spiritual friends. They couldn't care less whether or not I see things their way, and accept my laissez-faire attitude without reproach.

reply: I suppose you mean 'constantly', not 'consistently'. I hope you don't consider my correcting you a put-down or condescension. Since you have not presented any specific examples, I can't defend myself except to say that many people consider criticism of their ideas and beliefs to be personal attacks and put-downs. I certainly do not intend to refrain from criticizing ideas and beliefs for fear of hurting someone's feelings. I try to mock only the arrogant and the dogmatic.

My intent is not to criticize your tone, so much as it is to wonder at the source of it. I know many highly intelligent, educated and well-reasoning folks who believe in their own spirituality. Certainly skeptics have not cornered the market on that, and referring to spiritualist and religious believers as though they were a pack of ignorant children led easily around by the nose in order to make your case is simply a misrepresentation of the situation (something I believe you find distasteful in the average spiritualist).

reply: I think you are the one doing the misrepresenting.

You give a number of alternate explanations as to why such events take place, but no empirical evidence to back it up. You sound as if you are supposing that people experience deja vu as a result of present day remembrances, yet offer no reason for it except, I assume, that you believe it to be so. You claim that a soul is unnecessary. Well, so are humans (the universe got on quite nicely without us for billions of years) but here we are. I do not advocate the acceptance or rejection of any particular belief system, but I do think a little more respectfulness would not be out of order. You could do one of two things Admit that although you are entitled to your beliefs and may be absolutely correct, it is possible that our limited human faculties really do inhibit a true understanding of the scope of our world. Or you could just concentrate on selling more books.

Paula Coviello

reply: It is always nice to hear from someone who doesn't like put-downs

and is respectful of other people's opinions, especially when they differ from her own.

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the penile plethysmograph (PPG)

The penile plethysmograph (PPG) is a machine for measuring changes in the circumference of the penis. A stretchable band with mercury in it is fitted around the subject's penis. The band is connected to a machine with a video screen and data recorder. Any changes in penis size, even those not felt by the subject, are recorded while the subject views sexually suggestive or pornographic pictures, slides, or movies, or listens to audio tapes with descriptions of such things as children being molested. Computer software is used to develop graphs showing "the degree of arousal to each stimulus." The machine costs about \$8,000 and was first developed in Czechoslovakia to prevent draft dodgers from claiming they were gay just to avoid military duty. Farrall Instruments Inc., of Grand Island, Nebraska, manufactures the device and in 1993 had sold most of the 400 units then in use in sex-offender treatment centers in some 40 states. Medical Monitoring Systems of New Jersey is also one of the leading PPG manufacturers. Another vendor of the PPG is Behavioral Technology Inc. in Salt Lake City. In addition to the United States, the device is being used in China, Hong Kong, Norway, Britain, Brazil and Spain.

The theory behind the device is described by Dr. Eugenia Gullick

The plethysmograph . . . directly measures the outside evidence of sexual arousal. We know-- it's established throughout the literature that when a man becomes sexually aroused--there is engorgement of the penis. It's a one-to-one relationship.

In a polygraph, galvanic skin responses are measured, and we have to make a leap of logic to think that galvanic skin response is related to anxiety, and therefore truthfulness. And it is that jump in logic that leads to a lack of reliability at times with that instrument

We know when the penis becomes engorged, we are measuring sexual arousal. So it's much more akin to ... blood pressure measurement. ([State of North Carolina v. Robert Earl Spence](#))

This much everyone seems to agree on: the device measures penile engorgement. Any male who has awakened with an erection knows, however, that penile engorgement is not always a measure of sexual arousal. On the other hand, most males would probably acknowledge that penile engorgement occurring while watching pornographic movies is due to sexual arousal.

What utility could such a device possibly have? Two uses have already been mentioned: to weed out false gays and to treat of sex-offenders. The latter is sometimes done in conjunction with aversion therapy, which involves subjecting patients to electric shocks or foul odors while being shown sexually suggestive pictures. The hope is that the treatment will dull the patient's interest in sexy materials. Psychologists use the PPG to measure the success of the therapy.

Submission to a PPG has been made a condition of parole for certain sex offenders. The PPG has been used in child-custody cases to determine that a father is or is not likely to abuse his child, and in sentencing decisions for sex offenders. It has even been given to children as young as 10 who had abused other children. The latter was done in Phoenix, Arizona, with no evidence either that the test was useful or that it would not be harmful when given to children. Not everyone submits quietly to the PPG requirements, however. Officials in Old Town, Maine, had to pay nearly a million dollars to a policeman who was threatened with firing for refusing to submit to a PPG.

Researchers at the University of Georgia have used the PPG to test the claim that homophobic men are latent homosexuals. In their study of 64 exclusively heterosexual men (self-identified), 66 percent of the non-homophobic group showed no significant arousal while watching a male homosexual video, while only 20 percent of the homophobic men showed little or no evidence of arousal. This University study has not aroused much interest elsewhere, however.

Finally,

there is an area where this device makes a valuable contribution: that of sorting out organic from psychogenic impotence. This is done by measuring changes in penile circumference during sleep, with increases expected during REM sleep. Men with psychogenic impotence still show erections, while those with an organic problem don't. It works. I once set up a lab in a psychiatry dept. at U. of Penn. to do this (Dave Bunnell, personal correspondence).

where's the science?

Scientifically, what are we to make of such a device? Well, the machine can measure response time to a stimulus and it can measure change in penile girth over time. Apparently, it is assumed that the more quickly aroused and the greater the engorgement the higher the "arousal level." Apparently, it is also assumed by many practitioners that any "arousal level" when viewing or listening to descriptions of naked children or adults having sex with children is "deviant." Yet, according to studies done by the inventor of the PPG, Dr.

Kurt Freund, "many so called *normal* men who have not committed illegal sex acts show considerable arousal to stimuli depicting naked children or children involved in sexual activity."* And, in one [court case](#), Dr. Michael Tyson, a clinical and forensic psychologist specializing in the field of sexual criminal behavior, testified that "the vast majority of individuals who commit sexual offenses against children are not sexually aroused by stimulus material involving children." His expert adversary in that case, Dr. Gullick, claimed that "the plethysmograph has been extensively studied and recently shown to be ninety-five percent accurate in discriminating between individuals who had committed sexual offenses against children and a control group that was randomly drawn from the population." Yet, other experts have claimed that there are "studies in which the devices have failed to detect nearly one out of three known sex offenders tested."

It seems to be the case that the device has been the subject of many scientific studies and the results have been mixed, to put it kindly. The reliability and utility of the device have been argued in court and penile plethysmographic evidence has been declared inadmissible because of its "questionable reliability." The case in which Dr. Tyson testified was heard by the North Carolina Court of Appeals. That Appeals Court upheld a lower court's exclusion of testimony by Dr. Gullick because her testimony was based upon the use of the penile plethysmograph. The defendant in the case was accused of sexually molesting his 5-year old stepdaughter. He called Dr. Gullick to testify that his "arousal pattern" when tested on the plethysmograph indicated that he was not aroused by children. Presumably, the defense believed that this was strong evidence that he didn't molest the child. The trial court ruled that "Dr. Gullick would be permitted to testify as to any opinions which were not based on the plethysmograph." The Appeals Court agreed with the trial court that "the instrument was of questionable reliability; that the testimony was not relevant; and that even if relevant, its probative value was outweighed by its prejudicial effect."

We agree with the trial court that the evidence before it by no means established the reliability of the plethysmograph; there is a substantial difference of opinion within the scientific community regarding the plethysmograph's reliability to measure sexual deviancy....

In the present case, plethysmograph testing formed the basis for Dr. Gullick's opinion that defendant was not sexually aroused by children, thereby making it less likely that he committed the acts charged. In view of the lack of general acceptance of the plethysmograph's validity and utility and therefore, its reliability for forensic purposes in the scientific community in which it is employed, we hold that the trial court did not abuse its discretion in finding defendant's plethysmograph testing data insufficiently reliable to provide a basis for the opinion testimony which

defendant sought to elicit from Dr. Gullick. ([State of North Carolina v. Robert Earl Spencer](#))

Dr. Tyson testified in the Spencer case that it was "generally accepted in the mental health community by both proponents and opponents of the plethysmograph *that the plethysmograph data does not give any evidence that is useful in determining whether an individual did or did not commit a specific act.* He also noted that "there is substantial disagreement as to the extent to which the penile response is subject to voluntary control and as to whether the penile response as measured by the plethysmograph can then be generalized to anything else pertaining to sexual behavior." Putting it mildly, Dr. Tyson claims that the plethysmograph has very limited forensic utility. It seems clear that evidence based on the PPG has no business in the courtroom, either to exculpate or incriminate.

Nevertheless, there is a whole industry of therapists who treat sex offenders and think the PPG will assist them "in determining whether someone who has committed a sex crime has a pattern of deviant sexual interests." Therapists use the PPG to help them devise treatment programs and to measure the success of their treatment. All this is done without any concern, apparently, that there is no compelling evidence that *sexual arousal or non-arousal from pictures or sounds* significantly correlates with *criminal deviant behavior.* There is no compelling evidence that a person who gets aroused by pictures or sounds is significantly more likely to commit sex crimes than one who does not get aroused. On the other hand, there is no compelling evidence that a person who does *not* get aroused by pictures or sounds is significantly *less* likely to commit sex crimes than one who does get aroused.

Still, the PPG can provide some information which might prove useful to a sex-offender therapist. The computer software used with the PPG enables the tester to develop graphs that indicate whether the subject is more aroused by males than by females, by children than by adults, by coerced than by consensual sex, etc. The therapeutic controversy begins, however, as soon as the therapist tries to convert "arousal levels" to anything meaningful, such as claims that a sex-offender is "cured" or is "responding positively to treatment." This is in addition to the controversy already mentioned over using the PPG in conjunction with aversion therapy.

One glaring problem with the use of the PPG is the lack of standardized materials to use as stimuli for subjects, a factor which clearly biases the data. Therapists vary greatly in the kind of materials they use to arouse subjects. Some materials are rather tame, e.g., nude adults, children in underwear or bathing suits. Others use hardcore pornography, including depictions of rape and pedophilia. Furthermore, there is no standard of "deviancy" for arousal. Worse, if therapists can define certain arousal as deviant, they can then suggest treatments for the deviancy as well as having the power to declare when the "deviant" is "cured." Convicted sex-offenders are in no position to

protest either declarations that they have "deviant arousals" or treatments forced upon them in the name of curing them of the "disease" of "deviant arousal."

More objectionable than the questionable scientific validity of the device, however, are the moral and legal questions its use raises. Some of the materials would probably be illegal on the open market because they constitute child pornography. Much of the material is morally objectionable. Some of the uses of the device raise constitutional issues. For example, submission to the PPG test as a condition for employment, for enlistment into the armed forces, or for granting custody of children. Some penal institutions have made submission to the PPG a condition of parole, even though the device's usefulness as a predictor of behavior is unproven. The practice has been upheld by the [Seventh Circuit Court of Appeals](#). Parole Boards have great latitude in establishing conditions for parole. These conditions do not have to meet the same rigorous standards as are required before something allegedly scientific can be admitted as evidence in a trial. Nor do the normal liberties and constitutional protections of citizenship automatically apply to one being paroled.

From a scientific, moral and legal point of view, what should matter is whether a person *gives in* to perverse desires and *commits* sex crimes. It is neither immoral nor a crime to get aroused. Furthermore, being aroused is not identical to having a desire. A man or woman may be aroused by the sight of animals copulating or be aroused by a film of a woman eating a banana and a man eating a fig in particularly provocative ways. Still, they may have no desire to engage in bestiality or have sex with a bowl of fruit. A heterosexual man or woman may be aroused by the sight of lesbians engaging in oral sex, but have no desire to have sex with lesbians or in the presence of lesbians. And, if Dr. Tyson is correct, apparently there are many "normal" men who are aroused by photos of naked children but have no desire to have sex with children. And there are many pedophiles who are not aroused by photos of naked children. The PPG measures *arousal*, not *desire*, though many sex-offender therapists seem to identify arousal with desire. These therapists, therefore, may be engaging in little more than wishful thinking when they think that because they witness a decrease in arousal they have evidence for a decrease in desire, which they correctly correlate with a decreased likelihood of acting on that desire. Decreased arousal may not be strong evidence for decreased tendency to engage in criminal sex acts. Strong arousal need not imply strong desire for what causes the arousal; and weak arousal need not imply weak desire. Furthermore, no test can determine whether a person will act on his feelings and desires. Nevertheless, many of those who treat sex offenders swear by the PPG even though there is no compelling evidence that PPG readings validly indicate a tendency to commit or not commit sex crimes.

further reading

reader comments

- [The Penile Plethysmograph in False Allegation Cases](#)
- [State of North Carolina v. Robert Earl Spencer, August 1995](#)
- [United States Court of Appeals For the Seventh Circuit: John E. Walrath v. Carol P. Getty and United States Parole Commission \(1995\)](#)
- [Parker & Parker vs. David Dodgion, Ph.D](#)
- [Attorney Susan K. Smith's arguments regarding admissability of penile plethysmography under *Daubert v. Merrell Dow Pharmaceutical*](#)
- ["Sex Offender Treatment Does it Work? Is it Worth it?"](#) from Ron Kokish

"Debatable Device," Stephen J. Adler, *Wall Street Journal*, February 3, 1993, p. 1.

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reader comments:

penile plethysmograph

30 May 2000

Hello, I'm the member of the committee of the organization of the Czech transgendered people Transforum. We've found your article about using PPG in diagnostic. I'd like to let you know that this machine is used in diagnostics of transsexuals (both Females to Males and Males to Females) here in the Czech republic.

Some of the doctors ask the clients to undergo the test with PPG as the obligatory test for making a diagnosis of transsexuality! They show erotic photos to transsexuals. Of course, we transsexuals consider this to be total nonsense. They think it is science They don't even consider the possibility of homosexual transsexuals oh, well.

We consider this test to be very humiliating and at the same time absolutely useless in these cases. What's your opinion? Will you tell us, please.

Thanks.

O.R.

<http://move.to/transforum/>

reply: I think your doctors are very confused about sex and transgendering if they are measuring arousal to help them make a decision as to whether to proceed with the treatments.

10 Mar 2000

I have a skeptical reference for the subject penile plethysmograph and related matters. It is "Sexual Instrumentation", IEEE Transactions on Biomedical Engineering Vol. BME-30, No.6, June 1983. pp 309-319.

This article is an applied review of sexual instrumentation, including the PPG. The paper is quite illuminating.

Steve Lutes

I am a psychologist in NY. Graduate of SUNY Buffalo. I've become more skeptical over the years.

I've received some heavy handed treatment of a certain powerful bureaucrats who insist that retarded individuals should be hooked up to penile plethysmographs to see if they're pedophiles. . . It's unbelievable! When you question their assumptions about this, they come back with veiled threats and ad hominem arguments.

The power of these people is scary.

Keep up the good work. . .

6 Nov 1996

Your argument holds true for the unauthorized use of the device in a prison or child custody situations, but in other cases it is a revolutionary and standardized method of determining the etiology of one's criminal persuasion.

reply: Revolutionary, perhaps, but in no way a standardized method of determining the etiology of anything, except perhaps the gullibility of soldiers, cops, prosecutors, parole boards, psychologists and social workers.

I think your "skeptical" cry to ban the device is little more than a witch hunt to eradicate its use.

reply: Thank you for noticing my "cry." Most people miss it. In any case, I haven't called for a "ban" on anything. You are partly right, though; I would like to eradicate the abuse of the PPG and see less wishful thinking and self-delusion in the world.

Perhaps addressing the inappropriate reasons for using the test should be focused on rather than the actual nuts-and-bolts of the setup.

Jim Roche, Seattle, WA

reply: I don't see why one can't do both.

Mr. Roche's follow up:

11 Nov 1996

You missed my whole point, charlie. Let me break it down to you. You popped up after an Infoseek search for the word "plethysmograph." I work in a residential care unit for witnessed sex offenders who for one reason or another stand incompetent to stand trial. They each received this test (albeit perhaps by an overzealous practitioner) to assess their compatibility with a community living environment. To make it simple, if they proved stimulated by a snapshot of a naked infant, their placement would be as far from infants as

was possible. This expands to protect the public from any pursuits, because their conduct shows that they have low impulse control, and respond vigorously to stimuli that they see as appealing. ok? ok. I'm sure you're glad that there is a way, despite all of the financial, psychological, and bureaucratic hangups, to keep the predators away from your family and friends. Right? Thanks, jimr.

reply: "Residential care unit?" Is that the euphemism we now use for psychiatric facilities for sex-offenders? What kind of facility would consider placing "witnessed sex offenders who are incompetent to stand trial" anywhere in any community, except the community of other "witnessed sex offenders" and their caretakers? If your facility does, then I think the community needs to be protected from your facility as well.

31 Dec 1997

From 1982-1988, I was the Director of the Psychophysiological lab at the Sexual Behavior Clinic in New York City. I personally (not through a technician) assessed and treated over 700 adolescent and adult sex offenders. After reading your piece on the plethysmograph, I have a few comments:

- 1. Plethysmograph data is totally useless for determining guilt or innocence regarding deviant sexual acts. It would be like using a personality test to convict someone of burglary.*
- 2. Plethysmographic data have no diagnostic value of any kind.*
- 3. About one-third of offenders show no arousal in the lab.*
- 4. The proper stimuli to use are not pictures, but taped fantasies. Ideally taped fantasies spoken by the offender themselves, describing the offenders' own fantasies as well as contrived ones.*
- 5. The value in plethysmographic assessment is to aid the offender in learning how to control erection responses during deviant fantasy. that is it. It has no value in "seeing if the treatment worked." Treatment should not be court-ordered. The best outcomes I've seen were post-adjudication, when there was no coercion involving treatment. I had the occasion to do some treatment with post-adjudication offenders at a detention facility in Bucks County, PA.*
- 6. The plethymograph most definitely has value in diagnosing organic versus psychogenic impotence. A study by Dr. Charles Fisher in 1965 determined that 1,000 out of 1,000 healthy men tested had penile erection responses during REM sleep. When there is lack of response, that indicates further evaluation by a urologist. So it is useful as a screening device.*

In summary, I agree with many of your concerns regarding the plethysmograph. I may have more direct, hands-on experience with this device than anyone in this country, and I've spoken against its abuses for some time now. But don't throw it away completely. It still has some limited, though functional use.

Robert M. Stein, Ph.D.

Center for Neurobehavioral Health, Ltd.

Lancaster, PA

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reader comments:

personology

10 Aug 1999

Your article was very interesting, however, you didn't seem to have gotten the information that we connect our work to biology, physiology, genetics, and a number of other true sciences. Our work is more tangible than is psychology or even the medical profession.

My husband, William F. Burtis, trained Naomi Tickle in a "Crash course" type of classroom, at her request. She stated she wanted to use personology as an adjunct to her "color consulting business". She tried to teach personology classes, but because she did not study long enough to understand the intricacies of our work she did not succeed. George Roman is currently a student of Bill Burtis' and so not fully trained as yet. Bill Whiteside, as far as I am aware, has used his knowledge of personology in Sales Training seminars, and been quite successful. However, he has not been involved in the research as of late, and I don't believe I know of any personologists that he has trained.

Teaching a subject causes any instructor to have to learn more and dig deeper into their subject, constantly. That is true if they want to be a truly knowledgeable teacher on any subject. You apparently interviewed people who are very familiar with the subject but not aware of all the connections and research that has been done in the area. Mr. Burtis has been working in personology for almost 45 years. He studied with Jones, and with Robert and Elizabeth Whiteside. He helped Robert Whiteside validate the 68 traits and was in the group who categorized the traits into groups. He and I are currently teaching several personologist, have graduated many, and are continuing the research as best we can with no funding to assist us. Other personologists are doing their own individual studies and findings.

We would welcome the chance to test our work with any of the other "accepted" personality tests out there. Most of our clients (who have had other tests) tell us their personology analysis was much more helpful because it was so specific. Our profiles fit ONLY the person for whom they were designed. They are not biased by the person's feelings about themselves, or by us for the most part, because we put the profile together from cell proportions compared to cell proportions. It's all in the head, face, hands, and body. I am sure there is still an enormous amount of information to be discovered about our work. I welcome all the help we can get. I also welcome anyone who would like to do further "scientific tests and research" on our work. I know it would prove itself

true!!

The reason you don't find it in any of your "scientific" studies books is because it is so unique there are really no "peer groups" with which to compare it. And it was and is used by the "everyday" people and not by the hard scientists. I'd love to an in depth scientific study happen. We have little money and even less time, but someday you will see structure-function "Personology" worldwide. And it is NOT like astrology or phrenology. It is like physiognomy and psychology and genetics and physics and biology and anatomy! Its real, it works. Ask any sports coach, ballet coach, or tennis coach, etc, if structure doesn't play a HUGE role in champions. Ask a race horse trainer. Structure equals function! That is a fact. Humans have the ability to CHOOSE how to use their structure but when under pressure we revert to our innate patterns.

If you'd like more information on this subject call my husband William F. Burtis, M.S. (831-476-1632) He is probably the world's most knowledgeable person on the subject of personology. Both its history and what is going on currently, as he is still involved in it.

Sincerely, Janelle M. Heyes-Burtis

reply: Personology doesn't seem that unique to me that it couldn't be tested. In fact, as mentioned in the entry, these ideas have already had their day in the past under different names.



[personology](#)

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The Philadelphia Experiment

If we are to believe [Carl] Allen, our naval hierarchy abandoned sanity and historical precedent by conducting an experiment of enormous importance in broad daylight using a badly needed destroyer escort vessel . . . If someone were to write a book telling the real story, its title might be *The Philadelphia Hoax: Project Gullibility* (Robert A. Goerman)

The Philadelphia Experiment is an alleged United States Navy experiment (Project Rainbow) done on October 28, 1943. According to legend, the destroyer [USS Eldridge](#) was made invisible, dematerialized, and [teleported](#) from Philadelphia, Pennsylvania, to Norfolk, Virginia, and back again to the Philadelphia Naval Yard. The experiment allegedly had such terrible side effects, such as making sailors invisible and causing them to go mad, that the Navy quit exploring this exciting new technology.

The experiment was allegedly done by Dr. Franklin Reno as an application of Einstein's unified field theory. The experiment supposedly demonstrated a successful connection between gravity and electromagnetism: *electromagnetic space-time warping*.

[The Navy denies that it ever did such a test.](#) The denial is taken as proof by the conspiratorially minded that the experiment must have really occurred. The less gullible ask, *Where did this story come from?*

The story is a mixture of fact, fiction, speculation, and madness.

The facts are that the Navy does all kinds of experiments, many of them secret. Many of these experiments attempt to find military applications for the latest discoveries or theories in physics, such as Einstein's unified field theory. It seems to be a fact that the Navy was experimenting with "invisibility" in 1943, but not with making ships disappear. Edward Dudgeon, who says he was there on the *U.S.S. Engstrom*, claims that they hoped to make our ships "invisible to magnetic torpedoes by de-Gaussing them." Dudgeon described the procedure: to UFO investigator [Jaques Vallee](#):

They sent the crew ashore and they wrapped the vessel in big cables, then they sent high voltages through these cables to scramble the ship's magnetic signature. This operation involved contract workers, and of course there were also merchant ships around, so civilian sailors could well have heard Navy personnel saying something like, "they're going

to make us invisible," meaning undetectable by magnetic torpedoes....([Vallee](#))

The *Engstrom* and the *Eldridge* were harbored together and, according to Dudgeon, crew members from both ships had parties together on shore and "there was never any mention of anything unusual." Though they did witness some spectacular electric storms, he says. ([St. Elmo's fire](#) is common in the area.)

[Marshall Barnes](#), who identifies himself as a "Special Civilian Investigator," claims Dudgeon's story is disinformation and that Vallee is a hoaxer out to cover up the government's real activities. Maybe so, but in March of 1999, sailors who'd served on the *Eldridge* reunited and told a *Philadelphia Inquirer* reporter that they "find the story amusing — especially because the ship never docked in Philadelphia."* Barnes also claims that he can prove that "optical invisibility" is possible through "the use of an intense electromagnetic field that would create a mirage effect of invisibility by refracting light."* He claims he proved this to the cable network A&E for an *Unexplained* episode, but that they reneged on the deal. One would think they would have jumped at the chance to demonstrate something so wondrous.

Morris Jessup's book

Another fact is that in 1955 an auto parts salesman and amateur astronomer named Morris K. Jessup published a book called *The Case for the UFO*. In his book, Jessup speculated--among other things--that anti-gravity and electromagnetism would be better than rocket fuel for propelling space vehicles. The following year, Carl Allen (a.k.a. Carlos Miguel Allende), a somewhat brilliant but very disturbed human being, started the hoax by writing letters to Jessup telling him of The Philadelphia Experiment. Allende claims that he witnessed the disappearance of a ship while on board the SS *Andrew Furuseth*, a merchant ship. He also claims he saw some *Eldridge* crew members disappear into thin air during a fight. Allen sent an annotated copy of Jessup's book to the Office of Naval Research in Washington, D.C. Jessup was summoned to Washington and turned over the Allen letters. Later, the Varo Corporation, a firm which did research for the military, published the annotated version along with Allen's letters to Jessup. Jessup committed suicide in 1959. Allen continued sending strange annotations to relatives for many more years, as he drifted from place to place.

The speculations regarding the origin of Allen's story have run rampant. Some say that he was there and saw it all. Some say that Allen is an alien and [channels](#) information. Some claim that the Navy is covering up the experiment and their complicity with aliens. The simple truth is that Allen made it all up.

Allen's hoax has grown into a legend which has been spurred on by a number of books, some of them fictional, some non-fictional, and others fictional but claiming to be non-fictional. In 1965, Vincent H. Gaddis's *Invisible Horizons: True Mysteries of the Sea* was published. In addition to stories about various disappearing islands, aircraft, and ships, Gaddis presents the basics of the legend as created by Allen in his letters and published in the Varo edition of Jessup's work. In 1977, Charles Berlitz published *Without a Trace: New Information from the Triangle*, which included a chapter on the Philadelphia Experiment. Berlitz is a frequent source for stories on strange phenomena, such as [Atlantis](#), the [Bermuda Triangle](#), and [Noah's Ark](#).

In the fictional category, *Thin Air* (1978) by George E. Burger and Neil R. Simpson stands out. It is about a Navy investigation of a cover-up of an experiment involving the USS Eldridge in 1943.

In 1979, *The Philadelphia Experiment: Project Invisibility* by William L. Moore and Charles Berlitz was published. This book is fiction but claims to be fact, and [plagiarizes](#) parts of *Thin Air*. In the Moore and Berlitz book, not only the ship but several crew members disappear into a new dimension, never to be seen again (unless, of course, you sail to Atlantis on Noah's Ark through the Bermuda Triangle where you will no doubt find these sailors holding a [séance](#)).

In 1984, a movie called "[The Philadelphia Experiment](#)" was produced. It was directed by Stewart Raffill and was based on a screenplay by William Gray and Michael Janover.

There have been other attempts to exploit the gullible with stories about this so-called experiment, but two stand out as more insane than the rest: *The Philadelphia Experiment, and Other UFO Conspiracies*, by Brad Steiger, with Alfred Bielek and Sherry-Hanson Steiger (1990); and *The Philadelphia Experiment Part 1- Crossroads of History*, presented by [Alfred Bielek](#). The former is a book which rehashes the usual stories of CIA plots, government conspiracies, secret meetings with aliens, trips to Mars, visits from the [Men in Black](#), etc. The latter is a video featuring a man who claims he was a physicist on the USS Eldridge in 1943 and was part of the team that conducted the experiment. Bielek claims he time-traveled in 1943 to 1983 during the experiment and lived to tell the story, only to be harassed by the U.S. government for his troubles.

The central claim of the Philadelphia Experiment may have a basis in fact, however. Edward Dudgeon describes the event.

I was in [a] bar that evening, we had two or three beers, and I was one of the two sailors who are said to have disappeared mysteriously...The fight started when some of

the sailors bragged about the secret equipment [radar, sonar, special screws, a new compass, etc.] and were told to keep their mouths shut. Two of us were minors....The waitresses scooted us out the back door as soon as trouble began and later denied knowing anything about us. We were leaving at two in the morning. The Eldridge had already left at 11 p.m. Someone looking at the harbor that night might have noticed that the Eldridge wasn't there any more and it did appear in Norfolk. It was back in Philadelphia harbor the next morning, which seems like an impossible feat: if you look at the map you'll see that merchant ships would have taken two days to make the trip. They would have required pilots to go around the submarine nets, the mines and so on at the harbor entrances to the Atlantic. But the Navy used a special inland channel, the Chesapeake-Delaware Canal, that bypassed all that. We made the trip in about six hours" ([Vallee](#)).

Such is the mundane stuff that urban legends are made of.

further reading

- [Alias Carlos Allende: The Mystery Man Behind the Philadelphia Experiment](#) by Robert A. Goerman (originally published in *Fate*, October 1980).
- [Quest for Truth: The Philadelphia Experiment - The Making of the Great American Novel](#) by Mack W. Shelton Jr.
- [The Philadelphia Experiment from A-Z](#)
- [In Search of the Philadelphia Experiment](#)
- [THE PHILADELPHIA EXPERIMENT: What They Didn't Want You To Know](#) by Joe Turner
- [The Astronomer and the Sailor](#) (Robert Goerman's *Fate* article summarized)

Goerman, Robert A. "Alias Carlos Allende: The Mystery Man Behind the Philadelphia Experiment," *Fate*, Oct 1980.

Vallee, Jacques F. "[Anatomy of a Hoax: The Philadelphia Experiment 50 Years Later,](#)" *Journal of Scientific Exploration.*" Volume 8, Number 1, Spring, 1994. [Rebuttal](#) (based on the writings of someone who identifies himself as "Special Civilian Investigator Marshall Barnes").

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reader comments:

Piltdown hoax

I thought you might be interested to know who created Piltdown man. In my article on the subject in the spring issue of Pacific Discovery the magazine published by the California Academy of Sciences in San Francisco I present new evidence that the man behind it was Sir Arthur Conan Doyle. Sounds to good to be true? Perhaps, but he did do it. And knowing that it was him, Piltdown man can be seen as a hoax--a huge practical joke--and not a case of scientific fraud committed by a scientist to advance his career.

In the article, I solve a puzzle left by Doyle in his novel The Lost World (published in 1912 right before Piltdown man's jaw turned up). The solution leaves little doubt that Doyle was behind it, a suggestion that was made in Science 83 by an anthropologist named John Winslow. Although he compiled a lot of circumstantial evidence against Doyle, he failed to notice the puzzle.

To appreciate the solution to the Piltdown mystery you have to be open to the possibility that the hoaxer could have hidden the clues in a young person's adventure novel, if you're not you won't get it. Also, I might mention that Doyle began The Lost World with these four lines that haven't made much sense until now:

I have wrought my simple plan
If I give one hour of joy
To the boy who's half a man
Or the man who's half a boy

Robert Anderson

American Museum of Natural History, NYC

response: I would have thought Arthur Conan Doyle would be more likely to fall for such a hoax than to perpetrate it, given his credulity with respect to the fairy tales of little girls.

07 Jun 1996

The little poem that this reader offers up as proof [that Arthur Conan Doyle perpetuated the Piltdown Man hoax] is fine evidence that the human mind will see what it wants to see in almost anything.

In my opinion, that little poem is saying nothing more than this:

I have done my job as an author
If I can give but an hour's joy
To those children that dream of being adult
And to those adults with a child's heart

Or something to that effect. I'm sure you get the idea. Great Dictionary by the way! Keep up the good work!

Michael D.S. Heacock

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Catalina (Katya or Catia) Rivas (a.k.a. de Arze, a.k.a. Arce)

Catalina Rivas is almost certainly a [pious fraud](#). The [thrice-married woman](#) hails from Cochabamba, Bolivia, though she now dwells in Mexico (Merida, Yucatan). Her piety is expressed by her alleged [stigmata](#) and her alleged "messages" from Jesus, Mary and angels who, for some unexplained reason, dictate their messages to Rivas not only in Spanish, but in Greek, Latin and Polish. (For some unknown reason, Jesus and Mary don't dictate to Rivas in English, so her "messages" have to be translated into that language. Many are posted on the [Internet](#).) She does not sign her name to her "messages," preferring to refer to herself as "la sierva de Dios" (the servant of God) or "la secretaria de Dios" (the secretary of God). She doesn't claim to be the author of her books; rather they are said to be [channeled](#) ("dictada a la sierva de Dios"). Nor does she have a publishing house. Her books are sold as photocopies.

Because of her alleged stigmata and "messages," Rivas is considered the spiritual mother of international religious movements known as the [Apostolate of the New Evangelization](#) (ANE) (in Spanish, [Apostolado de la Nueva Evangelización](#) and [The Great Crusade of Love and Mercy](#) (in Spanish, [La Gran Cruzada del Amor y Misericordia](#)) and has followers [all over the world](#).

If asked how it is possible for her to have the stigmata and be a pious fraud, the answer is that she does not truly suffer inexplicable wounds. They are most likely self-inflicted wounds, as evidenced by her performance on the Fox Network special ["Signs from God: Science Tests Faith."](#) If asked how it is possible for her to write books in languages she does not understand, the answer is simple: [she copies them](#).

She has already been [caught plagiarizing](#) the work of José Prado Flores and Salvador Gómez of Guadalajara, Mexico. Her messages from God published in 1996 as "Renovacion Evangelica" (Evangelical Revival) bear a remarkable resemblance to *Formacion de Predicadores* (*Training Preachers*) published several years before she got them from "God." The work of Prado Flores and Gómez was actually written many years before Rivas claimed to have gotten remarkably similar and often identical messages from God. According to Prado Flores, he and Gómez prepared the first version of their work in 1980, gave it as a workshop in 1982 and published it in 1988 [ISBN 83-7224-026-4]. Their work has been translated into Portuguese (1990), Italian (1992) and Polish (1999). *Formacion de Predicadores* has been published in later

editions with different ISBNs: 03-2001-0612 and 10-4933-00-01. I have the 1992 edition published by [Kerygma](#).

José Prado Flores is a respected Mexican author of Catholic books. He has [numerous publications](#) to his credit. Salvador Gómez is the author of [Para Un Matrimonio Feliz](#) (*For a Happy Marriage*). Prado Flores has written to me that Rivas has even kept his Mexican examples in her work, which, he says, would only be understood by Mexican readers. Also, in one of her books Rivas claims that Jesus warns us against listening to the authors of books!

Rivas has not always been such a holy person. She was a "fallen-away Catholic" in 1993 when she saw and heard [Nancy Fowler](#) in Bolivia. She even went to Conyers, Georgia, in the U.S. to see Fowler, a woman who claims the Virgin Mary appeared to her on the 13th of each month (à la [Fatima](#)) for several years. (For some reason, the visions have stopped and for [various reasons](#) Fowler has dissociated herself from the [Conyers people](#).) It was in Conyers that Rivas claims to have had her first stigmatic experience. For a while Rivas was a Fowler follower, but she broke away and, as mentioned above, is now considered the spiritual mother of another religious movement. (Fowler has distanced herself from Rivas and a group who tried to publish some of Rivas's "messages," noting that Rivas claims to have been in Conyers when she received one of her messages but she could not have been there because of an airline strike.)*

Rivas has credibility in part because she has the approval of her bishop, René Fernández Apaza, who has given his [imprimatur](#) to her "messages." He has also given his blessing to a bleeding, weeping statue, claiming it is worthy of veneration. He has even asked the Vatican to declare it a Signum Dei, a Sign of God. The Bishop is joined in his support of Rivas by Miguel Manzanera, a Jesuit theologian and member of the commission of Faith and Doctrine in Bolivia.

Some [Catholics](#) even think that the approval of Michael [Willasee](#), who produced the Fox program mentioned above, is significant evidence in her favor. Willasee, however, has proved himself to be [highly untrustworthy](#). He is either a [dupe](#) or a [dope](#) or [both](#). He is not without his fans, however. [Mr. Alastair Thompson](#) thinks Willasee and Fox walk on water. The able Mr. Thompson is joined in support of Fox with Mr. [Michael Cain of Catholic PewPoint](#) who writes

...this time FOX truly has leapt [sic] over the wall of division and immorality by bringing us programming that produced excellence in depth and devotion.

Whatever the opposite of skeptic is, Willasee, Thompson and Cain are the reigning triumvirate.

Rivas also has the support of Dr. Ricardo Castañón Gómez of La Paz, Bolivia, who is known as a former atheist and one with a keen eye for pious frauds. He also has been involved with the establishment of the [Apostolate of the New Evangelization](#) (ANE), which has centers in [Bolivia](#) and [Mexico](#), among other places. He is the author of *Father of All Mankind*. Chapter 13 of this book is published on the [Internet](#). He quotes Rivas and says of her "Catalina is a stigmatist from Cochabamba, Bolivia whom Dr. Castañón has studied extensively. The Archbishop of Cochabamba has given his Imprimatur to eight books of Catalina's writing which she attributes to receiving from Jesus and the Blessed Mother." Both she and Dr. Castañón might also attribute some of these "messages" to José Prado Flores and Salvador Gómez, for the English words of Ch. 13 translate beautifully into the Spanish of *Formacion de Predicadores*. [[See Document 1](#)]

Rivas' [spiritual advisor](#) is Fr. Renzo Sessolo Chies, S.D.B., of Bolivia, founder and president of ANE* and an active supporter of the [La Gran Cruzada](#). Prado Flores claims that Sessolo was kicked out of his religious order.

Not everyone has been taken in by Catalina Rivas. Besides those she has plagiarized, she has apparently lost favor with Juan Cardenal Sandoval Iñiguez, the Bishop of Guadalajara, who cancelled a scheduled appearance in Guadalajara by Rivas last summer (2001) after Prado Flores showed the bishop copies of his book and her "messages." Prado Flores wrote to me:

Catia was scheduled to appear in Guadalajara, Mexico where I now live. You can understand my total amazement when I put 2 and 2 together and figured out the famous "visionary and stigmatist" was the same lady that had "stolen" my book. A friend showed me a set books which were to be sold during the convention. We then went to the bishop of Guadalajara, Juan Cardenal Sandoval Iñiguez, who after seeing our study on her material immediately cancelled her participation. This of course made her write a letter accusing me of "stealing" her visions to write my book.

According to Prado Flores, Rivas sent a letter to Fr. Argulo, who had invited her to Guadalajara, in which she made the accusation that they "stole her visions." How this was possible, since her visions and "messages" occurred many years after their book, is left to the reader to discern.

further reading

- [Typical example of the similarity of "Renovacion Evangelica" and](#)

["Formacion de Predicadores"](#)

- [Mass Media Bunk 9](#)
- [CSICOP Response to Fox's Signs From God: Science Tests Faith](#)
- [Farce-of-the-Week via Fox-TV - Commentary, James Randi](#)

[Nickell, Joe. *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books: Buffalo, N.Y., 1993\).](#)

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Kath Gourlay

[The shroud on display in Rome: get your tickets now!](#)

shroud of Turin

"All empirical evidence and logical reasoning concerning the Shroud of Turin will lead any objective, rational person to the firm conclusion that the Shroud is an artifact created by an artist in the fourteenth-century." --[Steven D. Schafersman](#)

The shroud of Turin is a woven cloth about 14 feet long and 3.5 feet wide with an image of a man on it.

Actually, it has two images, one frontal and one rear, with the heads meeting in the middle. One [anonymous critic](#) notes that if the shroud were really wrapped over

a body there should be a space where the two heads meet. This critic also thinks the head is 5% too large for

its body, the nose is disproportionate and the arms are too long. Nevertheless, the image is believed by many to be a negative image of the crucified Christ and the shroud is believed to be his burial shroud. Most skeptics think the image is a painting and a pious hoax. The shroud is kept in the cathedral of St. John the Baptist in Turin, Italy.



Apparently, the first historical mention of the shroud as the "shroud of Turin" is in the late 16th century when the shroud was brought to the cathedral in that city, though it allegedly was discovered in Turkey during one of the so-called "Holy" Crusades in the so-called "Middle" Ages. In 1988, the Vatican allowed the shroud to be dated by three independent sources--Oxford University, the University of Arizona, and the Swiss Federal Institute of Technology--and each of them dated the cloth as originating in medieval times, around 1350. The shroud allegedly was in a fire during the early part of the 16th century and, according to believers in the shroud's authenticity, that is what accounts for the carbon dating of the shroud as being no more than 650 years old. To non-believers, this sounds like an [ad hoc hypothesis](#).

According to Dr. Walter McCrone,

The suggestion that the 1532 Chambery fire changed the date of the cloth is ludicrous. Samples for C-dating are routinely and completely burned to CO² as part of a well-tested purification procedure. The suggestions that modern biological contaminants were sufficient to modernize the date are also ridiculous. A weight of 20th century carbon equaling nearly two times the weight of the Shroud carbon itself would be required to change a 1st century date to the 14th century (see [Carbon 14 graph](#)). Besides this, the linen cloth samples were very carefully cleaned before analysis at each of the C-dating laboratories.*

It may interest skeptics to know that many people of faith believe that there is *scientific* evidence which supports their belief in the shroud's authenticity. Of course, the evidence is limited almost exclusively to pointing out facts that would be true *if* the shroud were authentic. For example, it is claimed to be the negative image of a crucifixion victim. It is claimed to be the image of a man brutally beaten in a way which corresponds to the way Jesus is thought to have been treated. It is also claimed that the image is not a painting but a [miraculously](#) transposed image. Skeptics disagree and argue that the shroud is a painting and a forgery.

the relic trade

Skeptics believe that the shroud of Turin is just another religious relic invented to beef up the pilgrimage business or impress infidels. (Another equally famous painting, also claimed to have miraculously appeared on a cloth, cropped up in Mexico in the 16th century, ["Our Lady of Guadalupe."](#)) The case for the forged shroud is made most forcefully by Joe Nickell in his *Inquest On The Shroud Of Turin*, which was written in collaboration with a panel of scientific and technical experts. The author claims that historical, iconographic, pathological, physical, and chemical evidence points to inauthenticity. The shroud is a 14th century painting, not a two-thousand year-old cloth with Christ's image.

Another scholar to declare the shroud a fake is [Walter McCrone](#), a microchemist. He presents his case in [Judgment Day for the Shroud of Turin](#) (March 1999). His thesis is that "a male model was daubed with paint and wrapped in the sheet to create the shadowy figure of Christ." The model was covered in red ochre, "a pigment found in earth and widely used in Italy during the Middle Ages, and pressed his forehead, cheekbones and other parts of his head and body on to the linen to create the image that exists today. Vermilion paint, made from mercuric sulphide, was then splashed onto the image's wrists, feet and body to represent blood." For his work, McCrone was awarded the American Chemical Society's [Award in Analytical Chemistry](#).

the evidence for authenticity

The shroud, however, has many defenders who believe they have demonstrated that the cloth is not a forgery, dates from the time of Christ, is of miraculous origin, etc. It is claimed that there is type AB blood on the shroud. Skeptics deny it. Blood has not been identified on the shroud directly, but it has been identified on sticky tape that was used to lift fibrils from the shroud. Dried, aged blood is black. The stains on the shroud are red. Forensic tests on the red stuff have identified it as red ocher and vermilion tempera paint. Other tests by Adler and Heller have identified it as blood.* If it is blood, it could be the blood of some 14th century person. It could be the blood of someone wrapped in the shroud, or the blood of the creator of the

shroud, or of anyone who has ever handled the shroud, or of anyone who handled the sticky tape. But even if there were blood on the shroud, that would have no bearing on the age of the shroud or on its authenticity.

It is claimed that the cloth has some [pollen](#) [pdf format] and images on it that are of plants found only in the Dead Sea region of Israel. [Avinoam Danin](#), a botanist from Hebrew University of Jerusalem claims he has identified pollen from the tumbleweed *Gundelia tournefortii* and a bean caper on the shroud. He claims this combination is found only around Jerusalem. Some believers think the crown of thorns was made of this type of tumbleweed. However, Danin did not examine the shroud itself. His sample of pollens originated with [Max Frei](#) who tape-lifted pollen samples from the shroud. Frei's pollens have been [controversial](#) from the beginning. Frei, who once pronounced the forged "[Hitler Diaries](#)" to be genuine, probably introduced the pollens himself or was duped and innocently picked up pollens another [pious fraud](#) had introduced ([Nickell](#), [Shafersman](#)).

[Danin](#) and his colleague Uri Baruch also claim that they found impressions of flowers on the shroud and that those flowers could only come from Israel. However, the floral images they see are hidden in mottled stains much the way [the image of Jesus is hidden in a tortilla](#) or the [image of Mary is hidden in the bark of a tree](#). The first to see flowers in the stains was a psychiatrist, who was probably an expert at seeing personality traits in [inkblots](#) (Nickell, 1994)

Danin notes that another relic believed to be the burial face cloth of Jesus (the [Sudarium of Oviedo](#) in Spain) contains the same two types of pollen grains as the Shroud and also is stained with type AB blood. Since the Sudarium is believed to have existed before the 8th century, according to Danin, there is "clear evidence that the shroud originated before the eighth century." The cloth is believed to have been in a chest of relics from at least the time of the Moorish invasion of Spain. It is said to have been in the chest when it was opened in 1075. But, since there is no blood on the shroud of Turin and there is no good reason to accept Danin's assumption that the pollens were on the Shroud from its origin, this argument is spurious.



In any case, the fact that pollens found near the Dead Sea or Jerusalem were on the shroud means little. Even if the pollens weren't introduced by some pious fraud, they could have been carried to the shroud by anyone who handled it. In short, the pollens could have originated in Jerusalem at any time before or after the appearance of the shroud in Italy. This is not a very strong piece of evidence.

Moreover, that there are two cloths believed to have been wrapped around the dead body of Jesus does not strengthen the claim that the shroud is authentic, but weakens it. How many more cloths are there that we don't know about? Were they mass produced like pieces of the true cross, straw from Christ's manger, chunks of Noah's ark? That cloths in Spain and Italy have identical pollens and blood stains is a bit less than "clear evidence" that they originated at the same time, especially since there is clear evidence that the claim that they have identical pollens and blood stains is not true. But, even if it were true, it would be of little value in establishing that either of these cloths touched the body of Jesus.

unraveling the weave

The weave of the cloth is said to be typical of the weave wealthy Jews would have had in the time of Jesus. The weave of the wealthy Jew doesn't seem consistent with the kind of people Jesus supposedly hung out with. However, as one reader, Hal Nelson, pointed out, "The linen cloth was supplied by Joseph of Arimathea, described in Matthew 27 as a "rich man" as well as a disciple. (The weave of Turin is herring bone; the weave of Oviedo is taffeta, proving, I suppose, that Jesus had disciples of all types, even AB.)

The image is of a man about six feet tall. The size and weave of the cloth have convinced one researcher/believer that the cloth may have been used as a tablecloth for the Last Supper. It could have been used for a lot of other things as well, I suppose.

To the believer, however, it is not the *scientific* proof of the shroud's authenticity that gives the shroud its special significance. It is the *faith* in the *miraculous origin* of the image that defines their belief. The miracle is taken as a sign that the resurrection really happened and that Jesus was divine.

Just another relic?

Perhaps the most fascinating aspect of the shroud of Turin controversy is the way true believers keep bringing up red herrings and the way skeptics keep taking the bait. Danin made his plant image/pollen grain argument in 1998, a follow-up on another plant image argument he made in 1997. He said in the 1998 article that his evidence showed that "the Shroud could have come only from the Near East." An AP article by [Traci Angel](#) (8/3/99) quotes Danin as saying that the evidence "clearly point to a floral grouping from the area surrounding Jerusalem." No doubt, [a raging debate will follow](#) (once again!) as to the origin of the plants and pollens. As if it matters. Even if it is established beyond any reasonable doubt that the shroud originated in Jerusalem and was used to wrap up the body of Jesus, so what? Would that prove Jesus rose from the dead? I don't think so. To believe anyone rose from the dead can't be based on physical evidence, because resurrection is a

physical impossibility. Only [religious faith](#) can sustain such a belief. To believe that someone floated up to the sky and disappeared (i.e., rose into heaven) is also not going to be proved one way or the other by these shroud arguments. Finally, no amount of physical evidence could ever demonstrate that a man was God, was also his own Father and conceived without his mother ever having had sex. Thus, no matter how many brilliant scientists marshal forth their brilliant papers with evidence for images of Biblical ropes, sponges, thorns, spears, flowers, tumbleweeds, blood, etc., none of it has the slightest relevance for proving these matters of faith.

See **related entries** on [faith](#) and [miracles](#).

further reading

[reader comments](#)

- [Cloudy shroud Is the linen a holy relic or just a pious fraud?](#) Jeffery L. Sheler
- Schafersman, Steven D. ["Unraveling the Shroud of Turin,"](#) *Approfondimento Sindone*, Year II, vol. 2, 1998.
- [Debunking the Shroud - Made by Human Hands](#) by Gary Vikan
- [Recent Shroud Claims Based on Earlier, Scientifically Discredited Data](#) by Joe Nickell
- [New "Shroud" Claims Challenged as Spurious \(CSICOP - June 1996\)](#)
- [The Shroud of Turin](#) by Al Seckel and John Edwards
- [The Skeptical Shroud of Turin Website](#)
- [The Shroud of Turin Research at McCrone Research Institute](#)
- ["Shroud of Turin Survives Suspicious Fire,"](#) by D. Trull, Enigma Editor
- [CSICOP Press Release on Turin Shroud](#) (August 23, 2000)
- [Barry Schwartz's Shroud of Turin page](#)
- [Shroud of Turin Links](#)
- [Verification of the Nature and Causes of the Photo-negative Images on the Shroud of Lirey-Chambéry-Turin](#) by Nicholas P L Allen
- [The shroud on display in Turin's San Giovanni Cathedral](#)
- [The Shroud of Turin Christ's Burial Shroud, or Cheap Piece of Art?](#)

[McCrone, Walter. *Judgment Day for the Shroud of Turin* \(Buffalo, N.Y.: Prometheus Books, 1999\).](#)

[Joe Nickell, *Inquest On The Shroud Of Turin* \(Buffalo, N.Y.: Prometheus Books, 1987\).](#)

Joe Nickell, "Pollens on the 'Shroud': A study in deception," *Skeptical Inquirer*, Summer 1994.

[Joe Nickell, *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Buffalo, N.Y.: Prometheus Books, 1993\).](#)

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Last updated 01/21/03



[shotgunning](#)

[the Silva Method](#)



[SkepDic.com](#)

Search the Skeptic's Dictionary



In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

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June 22, 2001. Two years ago, in a [review of a Fox network pseudo-documentary](#), I suggested that the alleged [stigmatic](#) Catalina ("Catia" or "Katya") [Rivas](#) was either deranged or a pious fraud or both. Now she is accused of being a plagiarist. Catia claims she gets messages from God and these have been published, causing amazement among her followers that such an illiterate woman could write such literate prose. Guadalajaran writer José H. Prado Flores claims Katya's messages are photocopies of his book *Formacion de predicadores (Training preachers)*, published six years before Catia's "messages." She was scheduled to speak in Guadalajara a couple of weeks ago, but the show was cancelled by Juan Cardenal Sandoval Iñiguez, the bishop of Guadalajara, after Prado Flores and a friend showed the bishop his work and the book Catia was claiming to have written from divine inspiration.

Unrepentant, Catia has accused Prado Flores of stealing her visions. (Perhaps he dipped into the [Akashic record!](#))

Well, at least that is the story of Prado Flores, a Catholic writer who described himself in an e-mail to me as "a writer of books oriented to forming leaders in the Catholic Church."

June 20, 2001. [USA Today](#) features an article on [psychics](#) that doesn't pander to the gullible and even presents some criticisms of [James Randi](#) and [Paul Kurtz](#) of those claiming to get messages from the dead, such as [John Edward](#).

The article by Greg Barrett of Gannett News Service is entitled "Can the living talk to the dead? Psychics say they connect with the spirit world, but skeptics respond: 'Prove it'." ([The Seattle Times](#) also picked up the article.)

This is old ground and I've covered it so much I think I may be getting close to the people living in the center of the earth, so I won't comment extensively. I agree with Randi that many people have an emotional need to believe in life after death and communication with dead parents, children, friends, etc. Perhaps that explains why they are not ashamed to present evidence for their belief that is weaker than what the same people would probably require before spending \$20 on a new garden hose.

For example, "in 1981 psychic Noreen Renier was lecturing on ESP at the FBI Academy in Quantico, Va., when she warned that President Reagan would soon receive an injury to the upper chest. Two months later, the name John Hinckley was

June 8, 2001. I have been looking for the silver lining in the cloud of the latest [Gallup poll](#) on Americans' Beliefs in Psychic and Paranormal Phenomena. While about half of Americans believe in [ESP](#), 62% percent do not believe in [channeling](#). And, while 42% believe in haunted houses, 46% do not believe that people like [James Van Praagh or John Edward](#) can get messages from the dead. Furthermore, 38% don't believe extraterrestrials have visited the earth, more than half of us don't believe in astrology and 59% reject belief in witches. Unfortunately, belief in haunted houses, ghosts, witches and getting messages from the dead are all up more than 10% from a decade ago.

May 24, 2001. [The New England Journal of Medicine](#) (Vol. 344, No. 21) published an article today which calls into question the validity of [the placebo effect](#). "Is the Placebo Powerless? An Analysis of Clinical Trials Comparing Placebo with No Treatment" by Danish researchers Asbjorn Hrobjartsson and Peter C. Gotzsche "found little evidence in general that placebos had powerful clinical effects." Their [meta-study of 114 studies](#) found that "compared with no treatment, placebo had no significant effect on binary outcomes, regardless of whether these outcomes were subjective or objective. For the trials with continuous outcomes, placebo had a beneficial effect, but the effect decreased with increasing sample size, indicating a possible bias related to the effects of small trials."

"The high levels of placebo effect which have been repeatedly reported in many articles, in our mind are the result of flawed research methodology," said Dr. Hrobjartsson, professor of medical philosophy and research methodology at University of Copenhagen.*

Typical of the kind of flawed research methodology Hrobjartsson is referring to would be that of surgeon J. Bruce Moseley who performed [fake knee surgery](#) on eight of ten patients. Six months after the surgery all the patients were satisfied customers. Rather than conclude that the patients didn't need surgery or that the surgery was useless because in time the patients would have healed on their own, he and others concluded that the healing of the eight who did not have surgery was due to the placebo effect, while the two who had real surgery were better because of having had the operation. [Irving Kirsch and Guy Sapirstein](#) made the same kind of methodological error in their controversial meta-study which found that anti-depressants work by the placebo effect, rather than that anti-depressants are unnecessary and useless. Hrobjartsson would probably claim that the observed results of controlled studies on anti-depressants were actually due to [regression](#).

Many researchers have avoided this kind of flaw by having a third group, who receive no treatment at all, to compare to the other two. If the placebo group shows better results than the group getting nothing, then surely the placebo is effective. Hrobjartsson and Gotzsche think most of these studies, too, are flawed, mainly due to having samples that were too small or due to patients who make reports aimed at pleasing the researcher. Thus, to those researchers who have found that depressed patients on a waiting list did not do as well as those on a placebo,* Hrobjartsson and Gotzsche might claim that the studies were too small or that the improvement was due to subjective and biased evaluations of either the would-be patients or the researchers.

The placebo effect is commonly asserted to be very strong: one-third of placebo patients getting better is a typical claim in textbooks and studies.* It is unlikely that the textbooks will be immediately revised to reflect the claims of Hrobjartsson and Gotzsche, but as [Dr. John C. Bailar III said](#): "The shoe is on the other foot now. The people who claim there are placebo effects are going to have to show it." (Bailar wrote the [editorial](#) accompanying the new study.) The need is for large, rigorously designed studies which clearly define and measure effects of drugs and therapies versus placebos versus no intervention at all. These studies will have to clearly distinguish objective measurements (such as blood pressure, cholesterol levels, etc.) and subjective measurements (such as reports of pain or evaluative sensory observations by researchers, e.g., "I can see your tumor is smaller" or "I can see you are not as depressed as before"). The new studies must avoid [confirmation bias](#), selective perception, and subjective validation.

Most of the studies evaluated by Hrobjartsson and Gotzsche were small (for 82 of the studies the median size was 27, and for the other 32 studies the median was 51). Thus, even the seemingly positive effect of placebos for pain, may be illusionary. ("In 27 trials involving the treatment of pain, placebo had a beneficial effect, as indicated by a reduction in the intensity of pain of 6.5 mm on a 100-mm visual-analogue scale.")

One of the more disturbing aspects of this research is that it reminds us that placebos are widely prescribed. The authors of the article recommend that this practice be stopped. Dr. Bailar, on the other hand, thinks that "there should be a sharp reduction in the prescription of placebos," but he is opposed to the wholesale condemnation of placebo prescription. "The evidence that placebos might contribute to pain relief may merit their continued therapeutic use when there is reason to think that a patient may benefit." He may or may not be right about that.

further reading

- [The power of nothing](#) by Geoff Watts (*New Scientist*), a medical and science journalist, and author of *Pleasing the Patient*, a book on the placebo effect.
- [Researchers Debunk Placebo Effect, Saying It's Only a Myth](#) by Gina Kolata (*NY Times*)

May 11, 2001. [ABCNews.com](#) has a story today about the Disclosure Project (see [below](#)), complete with photo from an "alien" on display in [Roswell](#). James Oberg, an ABCNEWS space consultant and retired NASA engineer, is quoted as saying that Stephen Greer, who is orchestrating the Disclosure Project, has long argued "there's this bizarre theory that there is a worldwide real X-file cabal that is using UFO technology....People see strange things they can't understand, and that can't be explained either then or in hindsight, and it's good to keep documenting these, because often the mysterious sightings are things of interest, to military intelligence or even to science....Often, I've seen people jump to conclusions about what they saw, because, after all, to have been scared by a distant fireball can be embarrassing but to have encountered an alien space ship is more exciting."

The [WashingtonPost.com](#) also covered the event. The article, authored by Joel

Achenbach, begins

A group of people who believe in UFOs held a news conference yesterday morning that established beyond the shadow of a doubt -- that reached levels of credibility so high as to constitute actual proof -- that there really do exist people who believe in UFOs.

Achenbach says of Greer that

He arranged an impressive venue, the main ballroom of the National Press Club. Upward of a hundred people were there, along with more than a dozen TV cameras. At a long table up front sat 20 witnesses, most of them gray-haired men who'd served in the military.

The event was "old-fashioned," according to Achenbach, since it involved mostly a discussion of aerial anomalies and nothing about abductions or reproductive experimentation.

Achenbach noted a couple of items that are likely to hinder this project from being very successful: (1) Greer's insistence that the U.S. government possesses alien technology that could provide unlimited energy and has helped them build vehicles that travel faster than the speed of light, and (2) testimony from people like Clifford Stone, a retired Army sergeant, who claims that there are 57 alien species and he's seen them all, dead and alive.

May 9, 2001. Today was supposed to be the big day for UFOlogists but so far the great [Disclosure Project](#) hasn't ruffled any feathers. A group of UFOers, led by Dr. Stephen Greer, a founder of [CSETI](#) who gave up his position in medicine to pursue aliens full-time, has lined up several hundred motley "witnesses" to pour forth their heartfelt testimonies regarding various experiences with [UFOs](#), [aliens](#) and government agencies. For those who missed the earthshaking press conference, videos of the event are for sale and a couple of clips viewable on Real Audio are [available online](#).

As far as I can tell, the only thing new about this project is that Greer has brought disparate elements together, no doubt thinking that the sheer quantity of the testimony and quality of the witnesses should convince even the most hardened skeptic. The alleged hope is to get enough popular support to force Congress to hold hearings on the issue. Each of the those who testified asserted that he or she is ready to testify before Congress that what they say is the truth. I say that this is an *alleged* hope because it seems unlikely that Greer really thinks Congress is going to let several hundred people testify before Congress that the United States Government has conspired to keep the truth about aliens and UFOs from the American public for over fifty years. Now, if ex-President Clinton is accused of having had sex with an alien, Congress might agree to the hearings, but barring anything of that nature, these testimonies are likely to remain right where they are.

None of the testimony is new, nor is anyone holding a smoking gun. These are just hundreds of people who have had various experiences they believe are suspicious

and have interpreted as evidence of an alien presence. (They are not, however, the stereotypical country bumpkins walking the dog near swamp gas on the bayou.) The group claims that one of its goals is to stop the building of weapons systems to be used in space. I applaud them for that, but in a world where the daily news brings reports of the army's new lead-free bullets for a cleaner environment and executions that are carried out with dignity and professionalism, I have to be a bit skeptical of the chances of their success.

I looked for news reports on the Disclosure Project's big press conference, but found nothing on the websites for ABC, CBS, or NandoTimes. Even Fox News seems to have passed on this one. Maybe the networks were too busy following up on Tina Wesson and Survivor stories to be bothered with a mere UFO/alien press conference.

May 1, 2001. Harvard Medical school ([John Mack](#), [Andrew Weil](#), [Deepak Chopra](#), etc.) announced it has received [a \\$10 million gift](#) from the [Bernard Osher Foundation](#) to study non-traditional medicine. The money should help sustain the medical school's fledgling Division for Research and Education in Complementary and Integrative Medicine. The head of the "alternative" program at Harvard is Dr. David M. Eisenberg, who became hooked on the stuff while visiting China. (I wonder if he noticed that only about 10% of China's population is over age 60, while about 17% of the U.S. population is over 60. On the other hand, Sweden, Norway, Belgium, Italy, the United Kingdom, Germany, Austria, Greece and Denmark all have more people living longer than the U.S. does.* Maybe they have some secret "alternative" medicine our government is conspiring to conceal. I also wonder if he thinks that [China's doubling its lifespan since 1949](#) is due to the increase in traditional Chinese medicine. How effective does Dr. Eisenberg think acupuncture or mugwort was in treating malaria or tuberculosis? Maybe he wants to close the gap between China's and the U.S.'s longevity rates: Americans now live an average of about 5 years longer than the Chinese.)

There would be merit if the money were used for basic scientific research into the effectiveness and dangers of herbal therapies. The first of the money spent, however, is going to establish the Bernard Osher Chair in Complementary and Integrative Medical Therapies, a tenured professorship.

[thanks to Joe Littrell]

April 24, 2001. The [Journal of the American Medical Association](#) has published the results of a six-week study of medication errors at Children's Hospital Boston and Massachusetts General Hospital for Children. The researchers found an error rate of 5.7 percent: 616 medication errors out of 10,778 orders written for 1,120 patients.

The researchers found 115 potential adverse drug effects (ADEs), i.e., 1.1%. and 26 ADEs (0.24%). "Of the 26 ADEs, 5 (19%) were preventable. While the preventable ADE rate was similar to that of a previous adult hospital study, the potential ADE rate was 3 times higher. The rate of potential ADEs was significantly higher in neonates in the neonatal intensive care unit. Most potential ADEs occurred at the stage of drug ordering (79%) and involved incorrect dosing (34%), anti-infective drugs (28%), and intravenous medications (54%)."

The researchers believe that computerized physician order entry could have

prevented most of the potential adverse drug effects.*

further reading

- [Mass Media Bunk 10](#)
- [Mass Media Bunk 9](#)

April 22, 2001. [Citylinkonline](#) features James Randi in an article by Art Levine. The article details Randi's pursuit of [John Edward](#) and describes the 72-year old magician and debunker as "basking in the limelight while going on the warpath against psychics." Randi's challenge--a million dollars to anyone who can prove they possess psychic or paranormal abilities--is described as a publicity stunt and not offered in good faith by people like [Ray Hyman](#) and [Marcello Truzzi](#). The latter describes Randi as someone "who shoots from the lip." Randi denies the charges and calls Truzzi a "fence-sitter." (Truzzi seems to think that true skeptics should suspend judgment on just about everything.)

Randi also criticizes the work of [Gary Schwartz](#), a Harvard-trained professor of psychology and director of the Human Energy Systems Laboratory in Tucson. Schwartz claims to have proof of Edward's and others psychic abilities. "Harvard-trained" seems to impress some people, but we should remember a few others who are either Harvard-trained or who train others at Harvard: [Deepak Chopra](#), [Andrew Weil](#) and [John Mack](#).

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[The Skeptic's Refuge](#)



[More Mass Media Funk](#)



Silva Mind Control (Silva Method)

The Silva Method (formerly Silva Mind Control) is a self-help program which claims to teach one how to increase one's IQ, develop clairvoyance and use the mind to heal the body and find God, among other things. The program promises to teach you to "use the untapped power of your mind to accomplish whatever you desire."* The program is a hodgepodge put together by trial and error by José Silva (1914-1999), an electronic repairman who had a voracious appetite for literature in psychology, [parapsychology](#) and religion. He studied [hypnosis](#), hoping to use it to increase the IQ of his children, but became interested in developing [psychic](#) abilities after he became convinced that one of his daughters was [clairvoyant](#).

According to [Silva](#), he began using his method in 1944 on family and friends, but the program that now goes by his name started in the 1960s. He called his program "subjective education" and *psychorientology*, which he defined as "Educating the mind to function consciously within its own psychic dimension....becoming aware of the enormity of human potential and learning how to actualize this potential for the better of humanity."

The instruction emphasizes positive thinking, visualization, meditation, and self-hypnosis. One key element of the course "consists of 'visiting' absent persons imagined by students and performing diagnoses on them" (Randi, 218). Silva became convinced that most personal and world problems are due to "using only logical, intellectual, objective means to correct problems."* He claimed that "only 10 percent of humanity think with the right brain hemisphere" and these 10 percent are geniuses. The other 90 percent "use only the left brain hemisphere to think with. They do both their thinking and acting with only the left brain hemisphere."

Silva seems to have based his notions about the split-brain on the work of [Roger Sperry](#) and his colleagues. Silva, like many others who latched onto this split-brain model, seems to have modified it to his own purposes and beliefs. Much work has been done on the brain since Sperry. Without putting too fine a point on it, nearly everything Silva said about the brain is wrong. For a more accurate picture of what scientists think about this split-brain distinction see "[Left Brain Right Brain](#)" by John McCrone (*New Scientist*, July 3, 1999). The truth is that nobody thinks or acts only with their left hemisphere unless the right one is damaged or gone. In any case, it seems that Silva latched onto the split-brain theory *after* he had developed his subjective education program. I have no idea where he got the notion that geniuses don't use their left hemisphere.

So, Silva not only had found the method to make people smarter, healthier and happier, he also found out why his method works. It is because he is training his subjects to think with their right brain.

Those who think and act with only the left brain hemisphere get sick more often with psychosomatic health problems. They are more accident prone. They make more mistakes. They are less successful in life. When people think with the right brain hemisphere and act with the left, the results are just the opposite: They are healthier, less accident prone, make fewer mistakes, and are more successful in life.*

How he knows these things is not clear. He claims that leftbrainers are functioning at the beta wave level, while rightbrainers are at the [alpha wave](#) level. Silva believed that alpha waves are significantly better than beta waves. Actually, alpha waves increase in meditation and under hypnosis, indicating lack of focus or visual stimulation, not some higher brain activity. They are also produced by both sides of the brain. And the evidence is very speculative and tenuous that geniuses and creative artists are primarily functioning at the alpha wave level. Beta waves are evidence of concentration and heightened mental activity. If they are too extreme, they can be indicative of stress. But no one in his or her right mind should want to eliminate beta waves, unless you are trying to relax or go to sleep, in which case you would want fewer beta waves and more alpha waves if you want to relax and more delta waves if you want to sleep.*

Silva claimed that right brain thinking

- **changes the sub-conscious into an inner-conscious level. This allows people to also use the information stored in the subconscious, consciously.**
- **Right brain thinking — through intuition (ESP) — connects us mentally with all information on this planet, so that we can use this information to correct problems.**
- **It also connects us with higher intelligence, so that we can get the guidance and help that we need.**

It is his claim that he found a gateway to the subconscious, the psychic and to a "higher intelligence" (which he also refers to as "[Christ consciousness](#)") that sets the Silva Method apart from other self-help programs such as [Landmark Forum](#) or [Neuro-linguistic Programming](#). The claim to be teaching a way to get connected to that "higher intelligence" is what led some critics to think that the method is actually [a religious movement](#).

Despite the fact that the Silva Method is promoted with hyperbole worthy of

Fox news promoting the notion that aliens built the pyramids, it has many satisfied customers. Some claim their backhand in tennis has improved, others claim they were able to quit smoking or lose weight because of the Silva method. Still other say that they are happier and healthier than they've ever been, thanks to the Silva Method. It's been around for over forty years and claims to have instructors in 107 countries. Weekend seminars run about [\\$350 dollars](#).

For those who would like a cheaper method of improving your mind, especially your problem solving, and who would like to become more creative and effective as a thinker, I recommend [Conceptual Blockbusting](#) by James L. Adams. It's a lot cheaper and it will show you that there is a time for visualization and there is a time for logic and language. Knowing when to use which is the key to solving problems quickly and effectively. And it won't waste your time chasing after supposed truths in your subconscious. Nor will it mislead you with exercises for unleashing your psychic powers or for developing your Christ consciousness, which are more likely to lead your mind to delusion than to truth. Unfortunately, it is not likely to raise your IQ significantly or help you quit smoking or lose weight. But it will offer you some practical advice on how to use your mind more effectively.

further reading

- [Silva Method - Religiousmovements.com](#)
- [Silva International Inc.](#)
- [History of the Silva Method](#)
- [Jose Silva's Thoughts](#)
- [The "Science" behind the Method](#) (testimonials and proof that Silva students do have brain waves)

Adams, James L. *Conceptual Blockbusting: A Guide to Better Ideas* 3rd ed. (Perseus Press, 1990).

Randi, James. *An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural*, (N.Y.: St. Martin's Press, 1995).

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Last updated 12/30/01



[shroud of Turin](#)

[Zecharia Sitchin](#)



[SkepDic.com](#)



SkepDic.com

In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

8

December 10, 1999. That anguished howl heard round the world was none other than the "Church" of [Scientology](#) in Britain responding to the bad news that, according to the British government, Scientology is neither a charity nor of public benefit. So says the [Independent News](#), which uncharitably notes that "One of the group's main teachings is that the human race's problems are due to disembodied souls brought to the planet millions of years ago." [L. Ron Hubbard](#) must be turning over in his grave.

December 8, 1999. [The Dalai Lama says](#) that religious leaders should stop relying on prayer and meditation to bring about world peace. They should *do* something instead. "Change," he says, "only takes place through action, not through meditation and prayer." I wonder how they took the news in Damascus, where President Hafez al-Assad has all of Muslim Syria [praying for rain](#) even though [he knows words are not enough for some things](#).

The Dalai Lama also says that the new millennium is "nothing special."

His remarks were made before some 7,000 delegates from 70 countries at the Parliament of the World's Religions held in Capetown, South Africa. "We need to ask, 'How can I make a contribution (to world peace)?', not 'How can I further my own religion?'" he said.

While on a tour promoting [his new book](#) in the U.S. recently, he was asked what Buddhists would do if science discovered that something they'd been teaching were proved false. He said that if the scientists were right, the Buddhists would change their teaching.

Bravo.

[thanks to Jon Henrik Gilhuus]

December 6, 1999. "I am so scared that sometimes I stay awake on purpose so the day won't end," says 6 foot 4/220 pound, Jeffrey Modahl, recently released after fifteen years in prison for being wrongly accused of sexually abusing his stepdaughter during the witch hunt for [satanic baby killers](#) in the mid-1980s.

According to *Sacramento Bee* reporter Laura Mecoy, Modahl had gone to Kern County welfare workers in Bakersfield, California, because he learned that a pair of male baby sitters might have molested his daughter. (Modahl's wife died three years after marrying her in 1976 and he was raising her two daughters.) In a familiar story (there are about 50 other similar cases in Bakersfield alone, with about half resulting in prison sentences), his 10-year-old daughter was interrogated by officials and the girl claimed her father and six others had molested her. Carla Jo Owen, now married

with children of her own, says she lied under pressure from investigators and that only the babysitters abused her. She said so within three months of her father's conviction. Last May, a judge overturned Modahl's conviction.

Craig Phillips, the prosecutor in Modahl's case, says that investigators could have done a better job, but he has not changed his mind about Modahl's guilt. "If the claims were false," he says, "that is attributable to Carla." However, a 1986 report by the attorney general's office in Bakersfield criticized "poorly trained county investigators for taking children from their homes, interviewing them repeatedly, using leading questions and verbally rewarding those who made accusations."

"We were lied to so much and we were abused so much by the system that we don't know who to believe anymore," said Modahl.

Carla Jo has had a drug and alcohol problem most of her life since she was put in foster care (in 23 homes by the time she was sixteen). She says she's tried to kill herself eight times. Her sister, who still blames her for ruining her father's life, has also had drug and alcohol problems, has never married but has four children by two abusive boyfriends.

Modahl's family has been given a life sentence, as have many others who were caught up in the hysteria fueled by the likes of Geraldo Rivera who played up the satanic cult myth on his talk show years ago.

November 28, 1999. Avoid shopping at [Gurnee Mills](#) unless you want to support belief in psychics. According to [ABCNews.com](#), they've hired a "psychic" to help shoppers pick out the perfect gift. (I wish I was kidding.)
[thanks to Jon Henrik Gilhuus]

November 27, 1999. Donna Bryson of the Associated Press in Cairo provides a reminder that this year is not only not the end of the millennium for those of us on the Gregorian calendar, but that the Gregorian is not even the calendar of choice for billions of people on the planet. In fact, some people still prefer lunar years to solar years. For example, it is 1420 according the Egyptian Muslim (lunar) calendar, which marks the beginning of historical time from the day the Prophet Mohammed fled Mecca. The few Jews still living in Egypt consider this 5760. They use a Hebrew calendar.

According to one group of Hindus in India, it is 2056. According to another group, it is 1921. And, in Iran, Shiite Muslims are in the year 1378.

Others accept the Gregorian calendar but don't celebrate New Years Eve on December 31. The Copts (Egyptian Christians), for example, consider September 11 to be New Years Day.

So when does the new [millennium](#) begin? (This is important for those predicting the end of the world as we know it.)

November 24, 1999. Italy may be a Catholic country, but the Italians have some

strange superstitions regarding priests and nuns, according to [CNN.com](#). Passing either on the street is considered bad luck.

[thanks to Jon Henrik Gilhuus]

November 23, 1999. Erica Good of the [New York Times](#) (reprinted in the *Sacramento Bee* today, p. A9) reports that a coalition made of of the National Education Association, the American Academy of Pediatrics and the American Psychological Association have taken aim at the anti-homosexual religious movement, particularly the [Love Won Out](#) campaign to introduce reparative therapy (also called [conversion therapy](#)) into the schools. Reparative therapy is therapy directed specifically at changing sexual orientation. [Most psychologists disapprove](#) of such therapy.

The coalition's concern is with the growing anti-gay movement by people such as [Pat Robertson and the Christian Coalition](#), [Bridges Across the Divide](#), and [Focus on the Family](#), a Colorado Christian group which sponsors Love Won Out conferences where participants are taught how to recognize and combat "pro-gay" messages and encouraged to endorse reparative therapy in public schools. The movement is seen as furthering the [hostile environment](#) gays find themselves in.

The coalition, in an effort to promote a safe environment for gays, has announced that it will be sending a 12-page booklet to the nation's 14,700 school superintendents entitled "Just the Facts About Sexual Orientation & Youth." The booklet states that "there is no support among health and mental health professional organizations" that being gay is abnormal or unhealthy.

Janet Parshall of the [Family Research Council](#) condemned the pamphlet. "If they're going to talk about 'the facts,' then here's a fact: All the major religions of the world consider homosexuality wrong," said Parshall.

Here's another 'fact': all the major religions of the world are wrong about this and about almost everything else they talk about.

November 17, 1999. The November issue of [Charisma](#) magazine has a skeptical article about a weird phenomenon that apparently began in Toronto several years ago and has spread to revival meetings in several countries. Some revivalists believe that God is doing dentistry and transforming amalgam fillings into gold. In Brazil, gold dust is said to fall from the head of [Sylvania Machado](#) when she prays. In *When the Glory Comes Down* Elizabeth Moll Stalcup examines the claim of certain pastors in North and South America and Europe who say that gold dust is falling in revival services. She questions whether what is appearing is really gold and wonders if it really comes from God.

When the charismatics are skeptical of miraculous signs, I suppose the hardened skeptics should take note.

In "[Gold Dust Phenomenon Stirs Up Questions Among Charismatics](#)," Andy Butcher notes that John Arnott of the Toronto Airport Christian Fellowship (TACF) canceled

a scheduled four-day appearance by Machado after a geochemist at the University of Toronto, who examined some "gold" flecks that fell from her head during a revival meeting, concluded the specks did not contain any gold but were some type of plastic film.

In "[From base metal to gold: theological reflections on the gold teeth filling phenomenon](#)," Andrew Walker traces the history of the God the Dentist movement from the Toronto Blessing in 1994 and casts doubt upon the veracity of the claim that God is replacing base metal fillings and crowns with gold at revival meetings. "Doing divine dentistry, like doing a turn at a party, seems to be a form of showing off, the self-indulgence of a mischievous sprite," according to Walker.

"I do not know who or what is behind the gold tooth phenomenon," says Walker, "but I do know that if God is behind it, then this is not a God I want to follow."

Amen.

[thanks to Bob Liichow and Jez Smith]

November 10, 1999. [The Associated Press](#) reports that Oklahoma has joined Illinois, Kansas, and Kentucky in the effort to have evolution demoted from the foundation of modern biology to 'just another theory.' (Kanawha County, West Virginia, is considering joining the pack.) The Oklahoma State Textbook Committee voted to require that all new biology textbooks carry a disclaimer saying evolution is a "controversial theory."

"Some of us on the committee wanted to send a strong statement to the publishers that we are fed up with textbooks that only present one side of the story," said John Dickmann, a middle school teacher who introduced the disclaimer. According to Mr. Dickmann, biology texts do not give enough attention to alternate explanations of the development of life (such as the *Genesis* myth?).

November 8, 1999. *Time* magazine devotes this issue to articles predicting what will happen in the year 2000. While waiting in the dentist's office I read an article by Leon Jaroff who predicts that the next century will see the end of the "alternative" medicine fad. He notes that the term 'alternative medicine' is just a politically correct term for quackery and claims that once people realize that homeopathic remedies are nothing but water and that those nurses waving their hands over your body are moving air not "energy," they will revolt. The Office of Alternative Medicine at the National Institutes of Health will be abandoned, says Jaroff. I wish I saw the same things when I look into my crystal ball.

While reading the article I started to envision a new movement devoted to alternative dentistry.

November 5, 1999. The [Electronic Telegraph \(UK\)](#) reports that a Kansas teacher has been sacked for telling a student that her parents have been teaching her "crap" about the creation of the universe. I can understand how exasperating it must be for a teacher to have to deal with hordes of infallible children who have been encouraged to believe that science is a bunch of crap, especially when school boards, government agencies, presidents and would-be presidents of the United States encourage the

students in their notion. Still...a teacher must show respect for even for the least of his or her minions and their guardians.

[thanks to Rachel Henderson]

further reading: [Washington Post](#) and [Cyberlearning](#).

reader comments:

11 Nov 1999

Greetings,

I regularly visit your Skeptic's Refuge, but this is the first time I actually feel the need to respond to something I found there. This concerns one of your most recent entries in the Mass Media Funk column, dated Nov 5, about a Kansas teacher who got sacked. You write, "a teacher must show respect for even for the least of his or her minions and their guardians."

Well, you see, I agree with you 100%, except on one point: I think said teacher's anger over what his young student was being taught at home proves that he showed a great deal more respect towards this child's developing mind than the student's parents did...

Thanks for a great Web site!

Viktor T. Toth

November 2, 1999. Will the Eastern Seaboard replace the Bermuda Triangle as the place where mysterious crashes occur in exceptional numbers? Not if John Allen Poulos has his way. In "Fear, Logic and Tragedy - Looking for Meaning in Coincidences," on [ABCNews.com](#), Poulos tries to ward off the tabloids with some mathematical logic. He explores the human "tendency to attribute significance to anomalies and coincidences" and encourages a rational look at statistics and events in light of several recent air crashes. He reminds us that "a passenger who daily and randomly takes a jet flight between American cities would, on average, go 19,000 years before dying in a crash."

[thanks to Jon Henrik Gilhuus]

November 1, 1999. On [ABCNews.com](#), John Allen Poulos revisits the [Bible Code](#) and summarizes its uselessness while reviewing the latest critique by Brendan McKay, published in the same journal as the original article that started all the fuss. [thanks to Jon Henrik Gilhuus]

November 1, 1999. "There was no exodus from Egypt, Joshua didn't bring down the walls of Jericho, and Solomon's kingdom was a small, tribal dynasty, an Israeli archaeologist says in a new article," according to [ABCNews.com](#). Zeev Herzog's archaeological evidence brings into question the accuracy of "the national myths that are the basis of Jewish claims to the land of Israel. "

October 29, 1999. James Redfield is joining other New Age healers in asking that "In the last moments of 1999, just as everybody focuses on the clock no matter where they are...join with everyone else and pray in their own way for a better world in the next century and millennium, for an increase in peace and freedom, and a general uplifting in the human race." That should do the trick. And if it doesn't usher in a new paradigm at least it might increase sales of his latest book, *The Secret of Shambhala*. Not that he needs the publicity. His latest is already a ["runaway bestseller."](#) [Jon Henrik Gilhuus, who alerted us to this nonsense, says it reminds him of Ambrose Beirce's definition of *pray*: "To ask that the laws of the universe be annulled in behalf of a single petitioner confessedly unworthy."]

October 29, 1999. Reuters reports that today [Erich von Däniken](#) called upon investors to buy shares in a [Mystery Park](#) he hopes to open in Interlaken, Switzerland, on a site that used to be a military airfield. The park, he told Reuters, "will let visitors explore unexplained phenomena such as how the great [Egyptian pyramids](#) in Giza were made or what caused the strange, miles-long [Nazca drawings](#) in Peru's desert." It is to be expected that von Däniken will emphasize the mystery part of his park. He says the park will provide more questions than answers to its visitors. People don't have "the time or money to visit the mysteries of this world themselves," he said, so he is bringing the mysteries of the world to them....if they live in Switzerland.

In his spiel to entice investors, von Däniken says that his park will present "the wonders and mysteries related to such questions as where our civilization came from and where it is going." Historians please do not bother to offer your assistance. This group has no interest in traditional explanations of the origins of civilization. They are not mysterious enough because they don't involve stories of aliens and spaceships. And who better to tell us about the future than a group of visionaries who think history should be created out of the imagination.

Von Däniken's group is selling shares in the Park to raise some \$3.5 million (5.5 million Swiss Francs). I don't know why he doesn't just give [Joe Firmage](#) a call. [thanks to Neil Winder]

October 29, 1999. A [Gallup poll](#) found that only about 12% of American adults object to Halloween on religious grounds. However, the poll also found that belief in [ghosts](#) and [witches](#) is going strong. Belief in ghosts is up 200% over twenty years ago and belief in witches is up 100%. What is most scary is that "belief in ghosts is much higher among younger Americans than among older Americans. In fact, over half -- 54% -- of those 18-29 say they believe in ghosts, compared to only 8% of senior citizens 65 and older." We're going the wrong way, baby! [thanks to Jon Henrik Gilhuus]

October 25, 1999. [The Chicago Tribune reported](#) that the Illinois Board of Education beat Kansas by two years in eliminating evolution from the state school standards. In July 1997, Illinois replaced references to evolution with "change over time."

A Christian conservative group affiliated with Republican presidential candidate Gary Bauer is taking credit for influencing the state's decision to exclude the

language, otherwise the quietly made decision might have continued to go unnoticed.

The bowdlerized Illinois Standards Achievement Test, to be administered for the first time next February, will not use the term 'evolution'.

The National Center for Science Education issued a report, ["Evolution Too 'Controversial' for Illinois Schools"](#) by Molleen Matsumura, on the proposed changes two years ago, but the media has not paid much attention either to the report or to the Illinois Board's decision.

[Thanks to Roy W. Mumaw]

October 21, 1999. Blair Anthony Robertson's "Speed-reading between the lines," (Sacramento Bee, October 21, front page) exposes one of the many scam artists in the speed-reading trade, [Howard Berg](#), who claims to be able to read 25,000 words a minute by reading "15 lines at a time backwards and forwards." That's about 80-90 pages a minute. Tolstoy's *War and Peace* should take Berg about 15 minutes to read, Robertson calculated. If Berg's claims were true, he would be, as he boldly asserts, the fastest reader in the world. Robertson, however, read Berg like a book, and was not fooled by the peppy personality or the hype. The first clue came at lunch when the reporter noticed that the world's fastest reader took twice as much time as he did to read the menu.

Robertson contacted Anne Cunningham, a University of California at Berkeley education professor and an expert on reading. She told him that tests measuring saccades (small rapid jerky movement of the eye as it jumps from fixation on one point to another) while reading have determined that the maximum number of words a person can accurately read is about 300 a minute. "People who purport to read 10,000 words a minute are doing what we call skimming," she said. Speed in reading is mainly determined by how fast a reader can understand the words and expressions one is reading. The fastest readers are those with excellent "recognition vocabularies." Faster readers can see words and understand them faster than slower readers. To improve one's speed at reading, she says, one should work on comprehension and study strategies.

Robertson did not skim over Berg's exaggerated claims or his credentials. He checked with Berg's alma mater and discovered that Berg was not telling the truth about his academic degrees. He noted that Berg had simply repackaged the Evelyn Woods Reading Dynamics course, one popular several decades ago with people like John F. Kennedy. Robertson noted that in his five-hour course, Berg hadn't said much about comprehension, except to suggest that it would come with practice. This did not deter several of the 35 students, who had paid \$51 each for the class from the Learning Exchange in Sacramento, from purchasing audio tapes for \$65.

The students would have done better to have enrolled in a community college course devoted to building study skills, vocabulary, and reading comprehension. It would have cost them less, and they would not end up wasting their time trying to read 10 lines at a time, backward and forward. They would also avoid the frustration that will be inevitable when they find that while they can skim through material at a greater rate than they can read it, the utility of such a skill is limited (good for most of what's likely to be in the daily newspaper, for example). Skimming makes both

comprehension and taking pleasure in words or ideas next to impossible. Why read fiction at all if you don't want to enjoy the language and the ideas? Who would want to hire a physician or lawyer who skimmed rather than studied? Does anyone really need someone like Berg to teach them to skim the sports pages?

further reading

- [Speed-reading can undermine learning: Reading in overdrive works for experts, not learners](#) by Bridget Murray (American Psychological Association)
- [Influential Studies in Eye-Movement Research](#) by Eric J. Paulson Kenneth S. Goodman

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[The Skeptic's Refuge](#)

[More Mass Media Funk](#)





reader comments:

07 Mar 2002

Hello, I'm a recent visitor to your skepdic.com web site, and the following statement from the page about prayer really caught my interest: "Some religions require parents to ignore medical treatment for their children, even if to do so is likely to prove fatal, in favor of prayer, e.g., Congregants of Church of Christ, Scientist, the Followers of Christ Church, and the General Assembly and Church of the First Born." A link to a "Time" magazine article on the subject is also provided. I'm writing to share a few thoughts with you about this subject.

I don't believe that your statement is a correct characterization of the teachings of Christian Science. For instance, in another article from "Time" called "Faith or Healing? Why the law can't do a thing about the infant-mortality rate of an Oregon sect" (August 31, 1998), a Christian Science Church spokesman has stated: "If one form of treatment is not working, parents have an obligation to investigate other alternatives, 'including doctors or hospitals'." This is not a new policy for the church. Mary Baker Eddy (1821-1910), the founder of Christian Science, has written in her book: "If patients fail to experience the healing power of Christian Science, and think they can be benefited by certain ordinary physical methods of medical treatment, then the Mind-physician should give up such cases, and leave invalids free to resort to whatever other systems they fancy will afford relief." ("Science and Health with Key to the Scriptures," p. 443). The church respects the right of individuals to make their own choices regarding health care treatment.

I'm certainly in favor of healthy skepticism, providing that it serves to uncover truth. I know that there are plenty of books and articles containing various opinions about Christian Science, but I find that the best way to know what it actually teaches about a given subject is to consult with the primary source, "Science and Health." I'd appreciate it if you would consider amending your statement about this subject, and please don't hesitate to contact me if I can be of further assistance.

Rick Sawdon

reply: Thank you for taking the time to write and inform me of your views on Christian Science regarding seeking medical treatment. I can see where some readers might interpret what I write as meaning that 'Christian Scientists are forbidden to ever seek medical help' or that 'Christian Scientists never seek medical help'. However, that was not my point. My point is that prayer is preferred and chosen by parents as a means of healing their child, even though at times this approach proves

fatal to the child. I do not believe the parents in such cases want their children to die or are malicious, but I believe there have been sufficient court cases dealing with this type of child abuse to warrant saying what I say. Whether it is the Church's policy to allow members to seek medical help when prayer isn't working is not my concern. Sometimes the child dies too quickly and the parents don't have time to seek proper medical care.

If I am wrong about this, I would like to be corrected. In any case, I have added a parenthetical comment to the entry on prayer and I hope this clarifies my claim so that the views and practices of these religions are not misrepresented.



[prayer](#)

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Last updated 11/20/02

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reader comments:

pseudoscience

2 Feb 1997

Congratulations and thank you for posting such a fine document on the web. I am 7-12 math/science teacher in a very small town in the very far north of Manitoba [Canada] In the 3 years that I have been employed here, I have seen scores of students who accept mass media pseudoscience as fact.

Even sadder, many of my aboriginal students (and their families) still seek medical advice and treatment from traditional "healers". These Shaman (or should I say Sharletans?) travel from remote community to remote community preaching their traditional healing methods. They encourage their patients to stop seeing local doctors and hospitals ("white" medicine) and they command a high level of respect the leaders of the aboriginal community. As you can imagine, their services aren't free. These snake-oil hucksters annoy me because:

-they prey on the mistrust and disdain that many in the aboriginal community already have for "white". They are widening the gulf between our cultures.

-they perpetuate superstition and misinformed attitudes towards science and medicine (like Christian Scientists, they deny that diseases are caused by germs!)

-they take money from families on social assistance, many of whom send their kids to school hungry.

The "white" community aren't always helpful either, when it comes to doing my job (teaching science). I am constantly pressured by fundamentalists from the local Protestant church to include "creationism" in my senior high biology program. The first couple of times this happened, my responses were somewhat glib, "only if I can come to your church next Sunday and give a lecture on Darwin." But now, I respond with a simple no - creationism is not science, and remind them that this is a public (not private) school. I am very glad that none of these people have succeeded in being elected to our school board.

Your website is a great service to teachers who, like me, are fighting against the tides of irrationality.

Clay Kellough

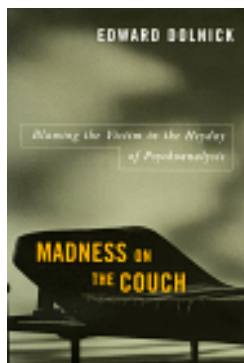


[pseudoscience](#)

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Madness on the Couch: Blaming the Victim in the Heyday of Psychoanalysis

by Edward Dolnick
(Simon & Schuster, 1998)

**I can't help being convinced that my dear fellow men,
with few exceptions, are worthless.
--Freud, in a letter to Lou Andreas-Salomé**

Edward Dolnick, former chief science writer for the *Boston Globe*, traces the popularity of psychoanalysis in America during the 1950s and 1960s. His focus is on the [pseudoscientific](#) theories and dangerous practices that emerged and flourished in the wake of World War II as American psychotherapists battled to understand and treat schizophrenia, autism, and obsessive-compulsive disorder. The analysts fought under the banner of [Freud](#), a self-declared conquistador, and ventured into territory their general had declared unconquerable. For two decades, history was written by these conquistadors, but when Dolnick retells the story one is reminded not of conquering heroes and brave explorers, but of the Nazis from whom many of them had been forced to flee.

Though Dolnick does not mention Freud in the title, his book is another in a growing list of attacks on the father of psychoanalysis. Freud is attacked not only for his ideas and methods, but for his arrogance and contempt for his patients and colleagues. For example, Dolnick points out that the couch, which has become the symbol of Freudian psychoanalysis, was not used by the master to help the patient relax. Freud explained it this way: "I cannot put up with being stared at by other people for eight hours a day (or more)" (20). It is tempting to apply the same kind of wild speculative interpretation of Freud's methods that he applied to everyone else's behavior. For Freud, nothing is as it seems. Everything is a symbol waiting to be interpreted. Thus, one might say that Freud laid his patients down so he could be above them, could dominate them, lord it over them. He himself sat erect while his patients lay limp. It was subtle, but he was raping them, taking from them their innocence, using them for his own pleasure. It was his shame, his fear of losing face, that kept him from facing his patients.

Speculation was and is at the heart of psychoanalytic theory and practice. However, unlike scientific speculation, which leads to testable hypotheses and controlled experiments, psychoanalysis was developed mainly by unscientific, if not anti-scientific, minds. One searches in vain among the analysts for any semblance of the typical concerns and attitudes of scientists. There is no

concern for testing their claims, which are put forth dogmatically rather than tentatively. Skepticism about their work is rare; bravado and bold assertions are common. Debate and argument with critics is acrimonious and fruitless. Yet, their influence was widespread. Art, literature, philosophy, religion, history; what discipline was not influenced by Freudian notions? Who did not emerge from college in the sixties and seventies "knowing" that [repression](#) explained everything and that the [unconscious](#) is the gateway to the secrets of the universe?

What can explain the popularity of Freud in America, if his theories and practices were so wrong? Like so many other things in life, it boils down to timing. The world had gone mad in the forties, culminating with the development and use of nuclear bombs. The beauty and genius represented in the development of flying machines was replaced by the horror of rockets and airplanes used to drop bombs on cities. The irrational ruled. Civilization is a thin veneer behind which lurks a raging animal ready to tear it down. How could one possibly make sense out such a world? Freud had an answer and it was better than anything the competition could come up with. Religion and philosophy, the traditional guides for the perplexed, were so vacuous and devoid of answers, they too looked to Freud for help. Furthermore, Freud's ideas had great utility for nearly every discipline. Marxists could gleefully explain capitalism in terms of anal fixations and hoarding feces (i.e., money). Writers could explore dreams, stream of consciousness, sexual symbolism, and feel they were plumbing the depths of hidden profundities. Everybody could explain their weird friends and relatives with these notions. It was creative; it was fun. Best of all, nobody could prove you wrong.

The main bit of good timing, however, did not come from the fact that Freudianism could explain such horrors as the Holocaust (as well as just about everything else), but from the fact that the analysts were primarily European Jews who ended up in America.

Dolnick's book, however, is not an attempt to explain why psychoanalysis became so popular, but how it destroyed many lives in the name of helping people. It is the story of good intentions and promises of hope, of treating patients with respect, treating them as persons who possess free will and who deserve love and patience. In fact, *Madness on the Couch* should be read by all the New Age medical gurus, such as [Andrew Weil](#) and [Deepak Chopra](#), who think that the problem with medicine today is that it lacks a mind/body approach. Treating the mind, rather than the body, was tried by psychoanalysts, psychiatrists, and psychologists during the 1950s and 1960s, and still enjoys a good deal of popularity in [some circles](#). A generation or more of some of our brightest minds seem to have gone mad, however, in their pursuit of understanding madness. What distinguishes them most, however, is not their errors, but their arrogance. They developed theory after theory, treatment after treatment, based almost exclusively on intuition and insight. Nothing resembling a scientific concern for [self-deception](#) appears in

the methods of the main figures, who are depicted by Dolnick stripped of their power, their unchecked ideas exposed for all to see. Their concern with persons and minds, rather than with bodies and their mechanisms, did not make them either humane or correct.

Freudian pseudoscience

The story starts, of course, with [Freud and psychoanalysis](#). Though Freud and his followers thought of themselves as scientists, and did a very good job of fooling a good part of the rest of the world on this matter, their main methods of inquiry were untestable. Such methods as free association, interpretation of dreams, and treating thoughts and actions as symbols, gave them a virtual blank check to claim they knew both the cause and cure of madness. They never used [control groups](#) because they saw no need for them. Their brilliance alone would show them whether their intuitions and insights were correct. All they needed for evidence was a plausible story affirmed by their colleagues. They had no trouble coming up with either.

That some of the best minds working in this field would ignore fundamental truths about human frailty--such as the ease with which we can [deceive ourselves](#) and the natural tendency toward [confirmation bias](#) and [self-validation](#)--is a puzzle in itself. The field seems to attract a particular type of personality: arrogant, authoritarian, and convinced of his or her own brilliance and special ability to see through the way things appear to what they "really" are. They lacked the essential skepticism that marks true scientists. They showed no tendency to propose *tentative* hypotheses or to test those hypotheses in ways that might exclude or minimize bias or error. Their behavior was more analogous to interpreters of *literature* than to interpreters of *nature*. These giants were [pseudoscientists](#) in every sense of the term.

Who were these giants and what did they do? First there was Freud, who taught them that the [unconscious](#) mind is a storehouse of [repressed memories](#) and that behavior, like dreams, must be treated as being symbolic. Furthermore, he taught that everything has meaning and the job of the analyst of the mind is to decipher the patient's thoughts, speech, dreams, and actions. Early on he imagined that mental disorders were due to childhood sexual abuse. Later he imagined that they were due to repressed memories of seeing or hearing adults engaging in various forms of sexual activity. He would not treat the severely mentally ill because he thought they were resistant to psychoanalysis, but he would not hesitate to explain severe mental illness. Schizophrenia, for example, was caused by unresolved feelings of homosexuality. His evidence for his theories and practices came from the insights he gained by seeing his patients, who, for the most part, consisted of middle class Viennese women suffering from "hysteria." His imagination was his only check in reality. Nothing resembling a sense of the need for a scientific methodology issues from his pen. All is speculation and interpretation put forth as dogmatic fact. He was so brilliant that he could

examine a single case, even at a distance (as with [Daniel Paul Schreber](#)) and declare that to understand one male paranoid is to understand them all. No generalization was too sweeping or too grand for the master. Freud was a guru, not a model scientist.

psychoanalysis in America

Had the [Holocaust](#) not occurred, psychoanalysis may never have flourished in America. Three-fourths of all analysts ended up here after the war with Germany. Those who sided with Nature in the Nature/Nurture debate were seen as aligning themselves with Nazi race theorists, as well as with [materialism](#) and [determinism](#). Worse, they were saying that the Holocaust was not an aberration and it could not have been avoided. (Freud, by the way, did not think that human nature is neutral and that a person can be made into anything by one's culture. The Holocaust and much more from human history made it indisputable that man is by nature a "savage beast" who desires to die and who has little empathy towards his fellow creatures.)

In America, theories of personality and mental illness based on upbringing, education, training, etc., were favored, not only because they distanced themselves from the [Mengele's](#) of the world, but because they seemed to be reconcilable with a belief in [free will](#). Biological explanations, on the other hand, seemed to imply a hopeless determinism. Any discipline or theory which threatens a belief in the [soul](#) or in free will faces centuries of cultural resistance. Thus, while there were some scientists after the war who were working on the theory that personality and mental illnesses were biologically determined, it would take decades before their voices could be heard above the din of the Nurture-over-Nature enthusiasts. Even now such voices are still being attacked for being "reductionist" and not "[holistic](#)." Psychoanalysis should be proof enough that being holistic does not mean one is any closer to the truth. Likewise, the discoveries of genetic causes of certain diseases should be proof enough that sometimes the material explanation, though reductionist, neither dehumanizes us nor takes us away from the truth. Finally, it should be obvious to even the amateur philosopher, that siding with nurture is as deterministic as siding with nature in the nature/nurture debate. There is a greater illusion of freedom in siding with nurture, since the environment can be changed, while one's genes can't. However, the deterministic power of one's genes might be overestimated, since a genetic defect might cause a problem only when one is exposed to something particular in one's environment, something which might easily be avoided, such as [fava beans](#).

the schizophrenogenic mother

In America, psychoanalysts soon started claiming that they not only understood the *cause* of such illnesses as schizophrenia, but that they could *cure* it. The new breed of analysts remained true to the spirit of their master: freewheeling theories and practices unchecked by meaningful empirical tests.

But they came up with new explanations for madness. *Mothers* caused it by their bad mothering. Or, *mothers* and *fathers* both caused it by their own mad behavior. Later, it would be claimed that the parents were victims, too, ad infinitum, I suppose all the way back to Adam and Eve.

Of course, if the parents caused the disease, then the cure would have to involve getting rid of the parents. The best way to do this was to devise treatments that isolate the patient, get him to reject his family, and encourage him to accept the therapist as a surrogate parent. It would not be long, however, before attachment to the therapist, encouraged by the very methodologies used, would itself be seen as another problem that belonged to the *patient*.

The paradigm therapist became someone like Frieda Fromm-Reichmann, who acted as a mother surrogate to her patients at Chestnut Lodge, a private mental hospital near Washington, D.C., for some twenty-two years. She invented the term "schizophrenogenic mother" to describe the kind of mother who caused schizophrenia in her child. She was heroized as "Clara Fried" by Joanne Greenberg in *I Never Promised You a Rose Garden*, a bestseller in the mid-1960s. According to Greenberg, Fromm-Reichman used *empathy* to cure her of schizophrenia (84). However, the diagnosis may have been an error. It is as likely that empathy can cure schizophrenia as it is that it can cure diabetes.

Fromm-Reichmann declared that schizophrenia was "a secondary result of very early serious warping of [the schizophrenic's] relationships with the people significant in their environment in infancy and childhood" (90). "Serious warping"--now, there is a truly scientific term! One might say that the serious warping continued with the therapist who now offered hope to the patient by claiming that she could undo the wrong that had been done to the child, the wrong that had caused schizophrenia. She would cure all their wounds and frustrations, like a good doctor and good mommy. How would she do this? By listening to her patients, by showing them that they had a true friend in Frieda, that there was someone who cared and would not run away from them no matter how strangely they behaved or spoke.

Soon there would be analysts claiming that just about every illness, physical as well as mental, was caused by bad parenting. Two analysts in particular were important to this development: Helen Flanders Dunbar and Franz Alexander. In 1947, Dunbar published *Mind and Body*, in which she declared that people get sick because subconsciously they want to get sick to receive "compensation for the neglect or severity they may have suffered in childhood" (68). In 1950, Alexander published *Psychosomatic Medicine* in which he claimed that asthma is caused by "a repressed desire for the mother" and other such nonsense.

the holistic Karl Menninger

In the 1950s and 1960s, Karl Menninger, with his father and brother, ran the Menninger clinic in Topeka, Kansas. He proclaimed that love would remove the evil in man's heart, that he was more "Freudian than Freud," that criminals are mentally ill, and that all mental illness was temporary, basically the same, and could be cured by psychoanalysis, i.e., talk therapy. Anxiety was the root of all illness; therapy would relieve anxiety. Since we are all anxious to some degree, the mentally ill do not differ from us in kind but in degree of anxiety. Such a view rendered diagnosis superfluous. One could begin the treatment right away, since the analyst knew before seeing the patient that he or she suffered from excessive anxiety. (This approach is popular today with [repressed memory therapists](#). They know before the patient reaches the door that her problems are caused by repressed memories of childhood sexual abuse.) The fact that Menninger had no scientific evidence to support his notions was deemed of no importance to those who saw him as a messenger of hope who respected the criminal and the insane as fellow human beings with fixable problems. He was holistic and treated the *person* not the disease. It seems to have mattered little to his supporters that he didn't know what he was talking about.

Searles and Rosen, therapists from Hell

Two other very influential analysts in the 1950s and 1960s were psychiatrists Harold Searles and John Rosen. Both treated their patients as an angry parent who lacks self-control might treat a naughty child. Searles and Rosen not only assumed that their patients were ill because of bad parenting or grandparenting, they believed that the cure would be *reparenting* with the therapist as the surrogate parent. If the way they treated their patients was their idea of *good* parenting, however, one would need Dante as a guide through Hell to describe their idea of *bad* parenting. Like Freud, they treated everything as a symbol and gave themselves absolute power to interpret these "symbols" in any way they saw fit. They abused their patients psychologically and physically. This is a chilling chapter (chapter six) in Dolnick's book as well as in the history of psychoanalysis. These men are described as if they were deranged themselves. Yet, they held positions of respect and authority within the therapeutic community.

Searles contribution to theory was that the mother causes schizophrenia in the child because of unconscious, repressed feelings of love for the child which the mother is unable to express because *her* mother was a bad parent. Thus, grandmothers are really the cause of schizophrenia. Rosen, on the other hand, was best known for what he called "direct analysis," in which, he claimed, he spoke directly to the patient's unconscious and could cure anybody of anything, including schizophrenia. In 1971, Rosen was named Man of the Year by the American Academy of Psychotherapy. In 1983, he gave up his license to practice medicine when he was faced with sixty-seven violations of the Pennsylvania Medical Practices Act (116). He and his associates beat and tortured a number of patients, at least one of whom died from their reparenting.

help from the wings

As if the doctors themselves could not come up with enough untested and untestable theories and practices, analysts sought allies from any quarter. One of the most notable was Gregory Bateson, one of Margaret Mead's husbands. Bateson had no training in medicine--he was a zoologist by training and an anthropologist by profession-- and had no experience with schizophrenia, yet he claimed to understand the cause of schizophrenia. What's more, he got a large segment of the analytic community to agree with his theory of the "double bind." Schizophrenia is a parenting problem and understanding it involved understanding how to interpret symbols. Parents, by their conflicting speech and behavior, confused the child so badly that the child could not decipher messages. The child would become so confused that as an adult he or she wouldn't even be able to know what anyone meant by "What would you like to do today?" According to Bateson, to the victim of perpetual double binds such a question might mean you were being condemned for what you did yesterday or it might be taken as a sexual invitation. Such a person would "be unable to judge accurately...just what was meant" (120).

Bateson claimed that there were three possible responses for someone caught in perpetual double binds. Not coincidentally, the three responses corresponded to what every text book described as the three main forms of schizophrenia (120).

1. The paranoid response. Every message has a concealed secret meaning.
2. The hebephrenic response. Every message is unimportant and laughable. ["Hebephrenia is marked by giggling dismissal of the world" (120).]
3. The catatonic response. Every message is to be ignored.

Schizophrenia, according to Bateson, is caused by a family's communication style, which, in turn, was due to the hostile, anxious, unloving nature of the parents. The schizophrenic's strange speech and behavior, the voices in the head, etc., are all due to linguistic confusion brought about by a childhood of mixed messages. It is indicative of the pseudoscientific nature of psychoanalysis that such a theory could become a centerpiece, though it was proposed by someone who had not done a single observation of a schizophrenic patient.

a psychiatrist for the sixties: R.D. Laing

There are many others in this litany of abuse that Dolnick describes, such as Harry Stack Sullivan and Theodore Lidz. However, one who deserves special mention is R.D. Laing, who was very popular during the sixties. Laing was a psychiatrist who claimed that schizophrenics did not have "breakdowns;" they

had "breakthroughs." Like many others during that period, Laing enjoyed his psychotropic drugs and his booze, and found a large audience ready to hear that being mad and getting stoned were akin to experiencing God. To many people, especially those who thought of themselves as being *oppressed* by society, Laing was a liberator. To hear him declare that the *world* is mad was to hear the voice of reason in an irrational world governed by racism, sexism, and tribal hatreds. However, when it came to specific patients with their specific problems, Laing was a true Freudian: everything is a symbol to be interpreted by the therapist. Furthermore, the "word salad" commonly identified with schizophrenic speech, was playacting "to throw dangerous people off the scent" (134). Their incomprehensibility is intentional. Schizophrenia is a strategy some people use to deal with an intolerable situation. His proof? He said he "cured" all twelve of his patients in just eighteen months. However, within a year all of them were readmitted to the mental hospital where he had treated them.

ice picks and lightning bolts

Why was psychoanalysis so popular among so many bright people for so long? One reason was its appeal to the creative mind. Freud's ability to create worlds out of dreams, twitches, figures of speech, etc., was unparalleled. There is something in the human psyche that desires to make sense out of things and there is something attractive and exciting about stories that make sense out things in surprising and intelligent ways. For the intellectual, creating myths is fun. So, on one side there is the sheer pleasure derived from coming up with these fantastic explanations of the most irrational or seeming meaningless or mundane thoughts and actions. On the other side, was the fact that the main opposition consisted of doctors who were sticking ice picks into their patient's orbital sockets in order to cause destruction in the prefrontal lobes or who were administering drugs or electricity in an effort to shock the brain into submission.

Chapter eight covers this period in medical history when it was considered a scientific advancement to move from drilling holes through the skull to jabbing an ice pick directly into the brain by entering through the eye socket. Better lobotomies through advancing technologies! Walter Freeman and James Watts' *Psychosurgery* was a hit in 1942 and Egas Moniz won the Nobel Prize for medicine in 1949 for his pioneering work in prefrontal lobotomies! The operation was so simple that even a non-surgeon like Freeman could do it. Killing a couple of patients by severing their cerebral arteries was considered a minor setback (146).

It was also considered a great step forward when electroconvulsive therapy (ECT), aka *electroshock*, replaced both intentional overdoses of insulin to induce coma and Metrazol injections intended to induce "epilepticlike convulsions in the schizophrenic" (144). [ECT continues to be used](#) for patients with severe and otherwise untreatable depression, although a new

therapy using magnets instead of electricity is now being tested: [transcranial magnetic stimulation \(TMS\)](#).

The main defense of these seemingly barbaric procedures was and is that "they work!" In this case, however, that did not mean that the doctors had many satisfied customers. It meant that the doctors themselves were satisfied with the results. It certainly did not mean that anyone with schizophrenia had been cured. It did mean that some patients with severe depression improved significantly, even if only temporarily and even if no one had a clue as to why it worked.

In short, patients had little choice in terms of what treatment was available. Psychoanalysis must have appeared to be the more *humane* of the available alternatives. But it was like asking the mentally ill whether they would prefer a lethal injection or the electric chair.

biology not quite to the rescue

So, where were the "biopsychiatrists" during this period? Where were the brain researchers, the neuroscientists, and the geneticists? They were there and they were mostly discovering that the brain was much more complex than anyone had ever imagined. Dolnick describes their struggles in chapter nine. The most interesting part of the debate between the Nature and Nurture advocates was that the data could be made to fit either hypothesis. In fact, I suppose, the data could have fit the astrologer's theory as well. The earliest data were gathered, in part, from studies of families and twins. It was known that about one percent of the population in America suffers from schizophrenia. It was discovered that the chances of being schizophrenic double if you have a cousin who is schizophrenic. The chances quadruple if you have an aunt or uncle who is schizophrenic. If a sibling is schizophrenic, the chances increase ninefold. If a parent is schizophrenic, there is a 13 percent chance that his or her child will have the disease. And if one identical twin is schizophrenic, there is a 50 percent chance that the other one is too. Does the data support bad parenting or bad genes as the most significant causal factor here?

Both sides saw the data as supporting their views. These poor schizophrenic creatures not only shared genes, they shared family histories as well. For example, it is no wonder that an identical twin of a schizophrenic is fifty times more likely to have schizophrenia than those in the general population. Their parents treat them alike. They dress them the same, talk to them the same, etc. Those who had blamed parenting already knew that schizophrenia ran in families, and they knew why, too. So, the geneticists' data were unconvincing that this was exclusively, or even primarily, a genetic disorder. In any event, the astrologer knows why twins tend to be alike even in their mental illnesses: they were born at the same time!

enter Leonard Heston, psychiatrist and scientist

A different kind of data was needed, if this issue of bad parenting causing schizophrenia was to be resolved. It would be provided by Leonard Heston, a psychiatrist working in a mental hospital in Oregon in the early 1960s (155). Heston gathered data on children born to schizophrenic mothers and given up for adoption. He compared them to a control group of adoptees born of non-schizophrenic mothers. If schizophrenia was due to bad parenting, there should be no difference in the incidence of schizophrenia in the two groups. Each should have about one percent schizophrenic children. On the other hand, if schizophrenia is caused primarily by a genetic predisposition to the disease, then the adoptees whose mothers were schizophrenic should have a significantly higher incidence of the disease than the control group. Heston gathered the data and another psychiatrist evaluated it without knowledge of whether the adoptee was in the control group or the schizophrenic mother group.

It was difficult, but Heston managed to track down 92 of 97 adoptees of schizophrenic mothers on his list. Five had schizophrenia; whereas none of the control group did. The chance that this was a coincidence was one in forty (157). Some analysts stuck to their guns and said the only surprise was that a bad mother could have such a tremendous impact in the few hours or days she had with her infant before giving it up for adoption (157). A larger study, done on Danish adoptees by David Rosenthal and Seymour Kety, confirmed Heston's work. Kety and Rosenthal studied "more than two decades' worth of adoption records from Copenhagen and its environs, an area that included roughly one-quarter of the population of Denmark" (158). Kety did a later study on the entire country. Elaborate controls were set up to avoid researcher bias. In comparing biological to adoptive relatives of schizophrenic adoptees, they "put in place an elaborate system of safeguards" to isolate "nature" and "nurture" factors (158). The evidence showed that "schizophrenia was concentrated in the biological relatives, although they had never spent time with the child they had given up for adoption" (158).

It was becoming clear that some people have a genetic predisposition to schizophrenia. About the only thing the analysts had been right about was that many of the parents of their patients were weird. They were weird because they suffered from a disorder similar to that of their children. However, their weird behavior did not cause their child's disease.

the cause of schizophrenia: unknown

Even with this data, however, researchers were no closer to understanding what causes schizophrenia. It might not be bad mothering, but something in the environment might serve as a catalyst, triggering the disease in some family members but not in others. To this day, no one knows what causes schizophrenia. All we know is that most children of schizophrenic parents,

and most parents of schizophrenic children, are healthy. We don't know why. There is no happy ending here...not yet, anyway. We know that there is an extremely complex biochemical system that affects our cognitive and emotive abilities. The fact that certain drugs which affect neurotransmitters, such as dopamine, significantly affect this system in schizophrenics, but not in healthy people, *indicates* that the disease is related to a neurochemical "imbalance." However, the drugs used to treat this and other severe brain disorders have been discovered serendipitously. We really do not understand why or how they work. The psychoanalyst, of course, can say that bad parenting is what causes the neurochemical imbalances. The astrologer can say that neurochemical imbalances are due to astrological imbalances. They can say these things, but their words seem hollow and without force. Where is their proof? What was it about all those adoptive parents that triggered schizophrenia in their adopted children with a genetic predisposition to the disease? Until the psychoanalysts can answer this question, their belief that bad parenting is a significant factor in the development of the disease remains little more than an article of faith. And where is the data showing that schizophrenic adoptees share some significant astrological connection? If it existed, I am sure the astrologers would have informed the world by now. The number of environmental factors that can significantly affect neurochemistry is quite large. Schizophrenia may not be one disorder, but a family of disorders with multiple causes. It is quite possible that very distinct triggering events could result in similar symptomologies. A viral infection might have the same effect on one person that a series of vicious assaults might have on another.

psychoanalysis not the cure for schizophrenia

It remained to be shown that psychoanalysis is ineffective as a *cure* for schizophrenia. This was done in the mid-1960s by psychiatrist Philip May. He randomly assigned 228 schizophrenia patients at Camarillo State Hospital in California to one of five treatment groups. Some got psychotherapy; some got drugs; some got both; and some got electroshock. The fifth group received "standard patient care" and served as a control group (161). The treatment lasted for six months to a year. May did follow-up studies on his patients three, four, and five years after the initial study. He published a series of papers over the years, detailing his findings. The control group and those who received only psychotherapy did about the same; they did the worst of the five groups. There was some improvement in the electroshock group. The two groups that fared the best were those treated with drugs, and there was almost no difference between those given therapy with their drugs and those who were only given drugs. May didn't know any more than anyone else as to why drugs worked, but it seemed pretty obvious that therapy, at best, was "nonsignificant" (161), i.e., useless. Other studies would conclude that psychoanalysis was not just ineffective; it was often harmful to schizophrenics (162). Karl Menninger responded by calling drugs such as Thorazine (chlorpromazine) "chemical straightjackets" (162). Menninger declared that drugs can't heal persons. Only persons can heal persons. It was a

lament one now hears from the likes of "alternative" medicine advocates, such as Dr. Weil, who claim that conventional medicine treats diseases not people.

Of course there is a danger that some psychiatrists will jump to the conclusion that the mentally ill need no therapy at all as long as they get their drugs. Nothing could be further from the truth, especially when many diagnoses are based on the patient's response to different medicines. The worst thing that could happen to psychiatry would be for it to think that everybody with a problem needs a pill, and the challenge is to find the right pill. Just because it has been shown that bad parenting is not the cause of schizophrenia does not mean that bad parenting doesn't cause many psychological problems in children for which there is no magic pill that will make the problems go away. Furthermore, the fact that a good percentage of the "mentally" ill do not respond to drug therapy may indicate that some "mental" illness is not primarily biological.

dangerous kindness

What makes people like Menninger and Weil dangerous is their kindness. How can one disagree with their idealized speech about proper doctor/patient relationships? A human being is suffering. A human being must understand the other's suffering and give hope to the sufferer. To reduce a human being to the level of cells, organs, neurochemicals, etc., is dehumanizing. We must treat persons as persons, and that requires that we not engage in reductionism or materialism. We must give proper respect to the patient's spirit and treat the whole person. The rhetoric is appealing, but it misguided and misleading. If you have a collapsed artery, you need a doctor who will open it up for you. This does not reduce you to a thing and it does not require medicine that reduces everything to the material level. You no more need a holistic or spiritualistic doctor to perform an angioplasty than you need a geomancer to repair a leaky pipe in your bathroom. Your doctor may pray with you and may treat you with the utmost respect, but if he or she does not repair your artery properly, you will die. The holistic baggage is superfluous metaphysics.

Psychoanalysts and many "alternative," holistic practitioners are fond of pointing out that nobody knows how or why these drugs work. All we know is that in a good number (some 75 percent) of schizophrenics, drugs such as Thorazine and Clozapine can stop the voices inside the head and eliminate the delusions. As a result of these and other drugs, many schizophrenics and others with severe brain disorders (such as manic-depression or obsessive compulsive disorder) are now able to lead productive lives in a broad range of professions, including psychiatry. However, when we say that drug therapy works, we do not mean that it produces many satisfied customers or pleased therapists. We mean that it allows a significant number of patients to live meaningful and productive lives. That is along way from saying that we know what causes schizophrenia and we have a cure for it. Nevertheless, research into biological explanations of thought and behavioral disorders seems to be the most promising now.

Is there no role for psychotherapy, then, in the treatment of schizophrenia? Dolnick does not address this question. He leaves little doubt that there is no role for psychoanalysis here, however, at least not as it was practiced in its heyday. The [National Alliance for the Mentally Ill](#) thinks that there is a significant role for therapists in the treatment of mental illness. It would be a mistake for psychiatrists to become little more than dispensers of drugs. But the nature of therapy must be radically different from that offered by traditional psychoanalysis. Some of the key problems that now occur are patients who don't take their medication, monitoring for side-effects of medications, helping with coping skills, dealing with radically diminished capacities and hopes, surviving in a world where one is stigmatized, jobless, etc. These require a different role from trying to come up with a plausible story to explain why your patient fantasizes about being pregnant with her deceased father.

autism¹ and the holistic Bettelheim

The history of the treatment of [autism](#) parallels that of schizophrenia. The analysts blamed bad parenting for this disorder, as well. The leader of the pack was Bruno Bettelheim (1944-73), whose survival of Dachau and Buchenwald, gave authenticity and sympathy to his opinions. Bettelheim's comparison of the autistic child to the survivor of the concentration camps was at the heart of his analysis. The child withdraws into himself as a defense mechanism against his tormentors, i.e., his parents. But equally attractive to his colleagues was Bettelheim's notion that he was treating the whole person. Those who claimed autism and other mental diseases were actually *physical* diseases with *biological* rather than environmental origins, were reductionists. His psychological approach, on the other hand, was holistic and humane. Not that errors can't occur in the other direction as well: one current myth is that autism is caused by the MMR vaccine.*

Bettelheim was director of the Orthogenic School for the rehabilitation of emotionally disturbed children, many of them autistic, at the University of Chicago. He wrote a number of articles and books on child psychology and child rearing, including *Love Is Not Enough* (1950) and *The Empty Fortress* (1967). Dr. Bettelheim had a Ph.D. in mythology and was not a trained psychologist or psychiatrist, though, like Bateson, he had tremendous influence on those fields. It was not until a parent of an autistic child entered the fray that the bad parenting therapists were pushed from center stage. Bernard Rimland, a research psychologist for the U.S. Navy, made the case that autism is biological and not caused by bad parenting in his *Infantile Autism* (1964). He got Leo Kanner, a leader of the bad parenting school who had invented the label "refrigerator mothers," to write the preface. Times were clearly changing. Rimland provided no original research, but he compiled an impressive argument from work already done by others. He may not have known what caused autism, but he knew that it was not bad parenting and that

it was biological. His own child, and many others, had it from the moment of birth. The data also showed that parents who fit the pathogenic profile "almost invariably had normal, non-autistic children" (222). Parents who don't fit the pathogenic profile give birth to most autistic children. Siblings of autistic children are almost always normal. He also noted that autism strikes boys much more frequently than girls, an odd fact in a culture that does not prize girls more than boys (to put it mildly). It has since been discovered that the vast majority (some 75%) of autistic children are also retarded,* and even the most vehement of parent bashers had not blamed mental retardation on bad parenting.

Bettleheim had allies, however. Harry Harlow's famous experiment with monkeys "raised" by surrogate mothers, one soft and cuddly, the other made of unwrapped wire-mesh, was touted as showing how bad mothering caused infants to go mad. The metal mother might provide milk, but it didn't provide sustenance. The infant monkeys much preferred a wooden mother wrapped in soft cloth to a cold and metallic mother. Harlow was famous for tormenting monkeys to gain insight into mental illness in humans. When he introduced "monsters" to frighten infant monkeys, they ran to the cloth momma, even though the metal momma provided milk. Ergo, a human child's first need is love, not food. Ergo, some families are "characterized by coldness, ambivalence, double binding messages and lack of physical contact" (200). He wrote that in 1971 for the *Journal of Autism and Childhood Schizophrenia*. In his article, he compared his tormented monkey infants to human infants. Both exhibited "marked social withdrawal" and they retreat to a corner to "avoid social contact." The autistic child, he declared, is a mirror of his isolated monkeys. They try "to shut out all outside stimulation." It seemed to be of little concern that observations of "refrigerator" or "metal" mothers were based on little more than self-fulfilling prophecies. They saw what they were looking for. Their common sense and insight told them what was true. They had no need for studies designed to eliminate [confirmation bias](#) as the source of their beliefs.

obsessive-compulsive disorder²

The one disorder that Freud claimed to know the most about was obsessive-compulsive disorder (OCD). He claimed to have found not only the cause but the cure for OCD. Bad toilet-training caused it: a child forced to control his bowels will grow up afraid of losing control over everything and will be driven to obsessive-compulsive behavior. Psychoanalysis cured it. He had no scientific evidence for either claim, however. Insight and the cleverness of his interpretations of "symbols" were the basis for the diagnosis. Self-delusion or fraud was the basis for his claims of cure; for, there is no evidence he cured anyone of this disorder, despite his repeated claims to have cured many, including two notable failures in patients he dubbed the Rat Man and the Wolf Man.

The obsessive-compulsive (OC) is characterized by being obsessed with certain ideas (such as "germs must be avoided") and being compelled to perform certain behaviors in response to the obsession (such as repeatedly washing one's hands). The OC's behavior bears a superficial resemblance to ritualistic behavior. For this reason, it is generally thought that the OC's compulsions are engaged in for the purpose of exorcising the obsession. After all, the OC admits that he does not want to have these thoughts. However, the OC also admits that he does not want to engage in rituals, which he recognizes are absurd and harmful. Nevertheless, the obsessive thoughts cause anxiety and the compulsive behavior seems to relieve it temporarily.

Freud at one time saw connections between OCs and both Lady Macbeth's attempt to wash away her guilt and religious rituals aimed at the same sort of thing. The OC feels guilty about masturbating, or about resenting her children or her husband. The obsessions and compulsions allowed the patient to replace unacceptable ideas with acceptable ones (248). Freud finally landed on the notion that the OC was repressing his or her excessively rigorous toilet-training. He eventually abandoned some of his wilder "symbolic" interpretations of behavior, but stuck to his guns that [repression](#) was the ultimate mechanism behind OCD.

It is worth noting that Freud was rather blind to a basic problem that plagues everyone seeking causal explanations. He did not just see his patients' behaviors as confirming his hypotheses, even when his explanations conflicted with one another. *He encouraged his patients to see things his way.* For example, one of his patients performed a nightly ritual before going to bed, which consisted of removing all clocks and watches from her bedroom, among other things. Freud noted (252) that

I was obliged to give the girl hints and propose interpretations....Our patient gradually came to learn that it was as symbols of the female genitals that clocks were banished from her equipment for the night....The ticking of a clock may be compared with the knocking or throbbing in the clitoris during sexual excitement....Wild thoughts, you will say, to be running through an unmarried girl's head. I admit that is so. But you must not forget that I did not make these things but only interpreted them.

But he *was* making these things. The above is only part of the "wild thoughts" in this case. There was more about fluffed comforters representing pregnancy; pillows and the headboard representing intercourse; and, flowers being arranged to represent fear of losing virginity. Not only was he making it all up, he was encouraging his patients to accept his explanations. He was undaunted by their repeated rejection of his notions. Like many [repressed memory therapists](#) today, Freud pushed on until his patients agreed with his notions of what was *really* behind their problems.

Freud declared that, as infants, obsessive-compulsives "refused to empty their bowels when put on the pot because they derive a subsidiary pleasure from defecating; for they tell us that even in somewhat later years they enjoyed holding back their stool, and they remember...doing all sorts of unseemly things with the feces that had been passed" (255). Did he do any controlled studies? No. Does he provide any data to back up these claims? No. Does he give any indication that he realizes he ought to be more scientific? No. This was junk science at its worst, but that did not deter its success.

Freud's notion that OCD is an attempt to exercise control, caused by harsh toilet-training leading to fear of losing control, was seen as a blank check for speculation by followers such as Karl Abraham. "Compulsive orderliness is at the same time an expression of the patient's desire for domination. He exerts power over things. He forces them into a rigid and pedantic system." Such ideas dominated psychiatry for some fifty years (254).

What is essentially different today is that most therapists, such as [Judith Rapoport](#), M.D., of the National Institute of Mental Health, see OCD and other "mental" illnesses as biologically based. The Freudian model of human behavior, for all its deterministic and mechanistic sounding explanations, is ultimately a model with free will at its heart. Patients are either too strong-willed to be argued out of their illness, such as schizophrenics, or they are amenable to change by persuasive arguments. Ultimately, talk therapy is an attempt to persuade the patient to agree with the therapist's interpretations in order to get better. Failure to heal is due to patient obstinacy.

The evidence keeps piling up that disorders such as OCD have biological causes and can be effectively controlled in most cases with medications and cognitive behavioral therapy. (What could be more holistic than providing both medicines for the body and therapy for the person?) Nevertheless, those favoring psychological explanations will probably always have a strong contingent. The main reasons for this seem to be (1) a desire to believe in the mind or soul as a separate reality from the body, (2) a belief that all behavior is ultimately a matter of choice, or (3) the well-founded belief that many troubled people are troubled because of "life-problems," not brain disorders. There will always be those who fear that to advocate biological explanations of behavior is to abandon psychological explanations and free will. The fear is that going down the biology path will lead to determinism, materialism, and the denial of responsibility for our actions. It is to abandon hope. It is to say you are doomed to be ill and you will always be ill. As a result, there will always be [therapists](#) who will defend their pseudoscientific and unscientific notions primarily by claiming that they are holistic, that they treat the mind *and* the body, that they are not reductionists and are therefore more humane and respectful of human dignity, hope, etc. They will point to their own satisfaction or to their satisfied customers as proof that their therapies "work." Their failures will be written off as due to either their patients' unwillingness to trust them and work with them, to interference from concerned family

members, to incompetent earlier treatment by other therapists, or to delaying too long before seeking treatment, etc. Finally, there will always be [journalists](#) like [Ariana Huffington](#) who will recommend discipline, and decry treating children with drugs for thought disorders or behavioral disorders. Anyone who gets out of line should be punished. It's as simple as that for some simpleminded people.

Freud's biggest mistake?

Freud's biggest mistake may have been his focus on the irrelevant, on red herrings. The weird thoughts and actions of the "mentally" ill may not be not clues to anything except the personal history of the patient. If "mental" illnesses are physical illnesses, then the *content* of delusions will be of no value in understanding the nature of the illness. Focusing on bizarre beliefs or weird behavior is a diversion, however interesting and compelling. All the knowledge in the world about a patient's delusions regarding the C.I.A. or gender metamorphosis will be of absolutely no value in curing the patient. Such knowledge would be as useless as knowledge of the dreams of someone suffering from viral meningitis. Moreover, if the weird thoughts and actions are caused by a brain disorder or neurochemical imbalance, then talk therapy will be ineffective. The therapist and patient might as well talk about the weather. Actually, talking about the weather might be better, for then there would be some check in reality for the therapist's interpretations. Traditional psychoanalysis, however, is like being thrown into the world of *Alice in Wonderland*. What do the patient's thoughts and actions *really* mean? They mean whatever the therapist says they mean. In the final analysis, however, the therapist's interpretations may be meaningless to anyone seeking to discover the cause or proper treatment of "mental" illness.

Will history repeat itself?

In conclusion, one can't help but wonder whether the excesses of psychoanalysis will be matched by equally disastrous excesses from those who think that there is a drug for every problem. (Depressed? Here take some Prozac. No need to talk to you. No matter that your brother was recently murdered by your mother's boyfriend. You need a serotonin adjustment.) Will there be Personality Doctors in the future, prescribing designer drug cocktails in an attempt to satisfy the customer's desire to change herself? (Cosmetic surgery to your left, Personality Adjustment to the right.) About the only thing that is certain is that whatever happens will mean full-employment for ethicists and critics such as Dolnick, as well as for those in the "helping" professions.

¹ Many people got their first look at autism by seeing the movie *Rain Man*. Experts seem to agree that Dustin Hoffman's

portrayal of Raymond, the autistic *idiot savant*, was essentially correct. Many autistics have strange abilities--at least they appear strange to the rest of us. Some can remember almost any date, or identify the day of the week of a particular date from the past. Some seem like human calculators. In addition, autistics are commonly devoid of affect and of have little sense of what others might be feeling. However, the likelihood that a traumatic experience in childhood is what triggers autism (suggested in the film) is not supported by the scientific literature. For an interesting account of what it is like to be autistic, one might read the work of [Temple Grandin](#) or Oliver Sack's account of her in the title essay of [An Anthropologist on Mars](#). Despite her disorder, Grandin earned a Ph.D. and a university professorship at Colorado State. She has become a renowned expert in the handling of livestock bred for slaughter.

Another interesting person with autism is [Kim Peek](#) who was partly the model for Raymond, the *idiot savant* in the movie *Rain Man*. Kim has the ability to read two pages simultaneously, one with each eye, with 98% retention. Nobody knows how he does it but he was born without a corpus callosum, the bundle of nerves that connects the right and left hemispheres of the brain. However, others have also been born with no corpus callosum, or had it surgically disconnected, without resulting in an increase in reading or retention abilities. Kim can recall most of the contents of some 7,600 books, yet he can't brush his own teeth. But, since nobody knows how Kim Peek does it, nobody can teach this skill to others.

² Many people got their first look at obsessive-compulsive disorder by seeing the movie *As Good As It Gets*. Jack Nicholson's portrayal of an OC has also been hailed as being essentially accurate, including his non-compliance with taking prescribed drugs and the improvement of his condition when he does take his meds.

further reading

- [National Alliance for the Mentally Ill Resource Page](#)
- [National Institute of Mental Health](#)
- [Schizophrenia - Questions And Answers National Institute of Mental Health](#)
- [American Psychiatric Association](#) Guidelines for treatment of schizophrenia
- [Medication-Psychotherapy Combination Most Effective for Schizophrenia](#) by Wayne S. Fenton, M.D.

- ["An Experimental Intervention For Autism Understanding and Implementing a Gluten & Casein Free Diet"](#) by Lisa S. Lewis, Ph.D. (controversial and worth a read)
- [OCD and Streptococcal Infections Linked](#)
- [The Antipsychiatry Coalition](#)

[Dawes, Robyn M. *House of Cards - Psychology and Psychotherapy Built on Myth*, \(New York: The Free Press, 1994\).](#)

[Dineen, Tana. *Manufacturing Victims: What the Psychology Industry is Doing to People* \(Montreal: Robert Davies Multimedia Publishing, 1998\).](#)

[Gold, Mark S. *The Good News About Depression : Cures and Treatments in the New Age of Psychiatry* \(New York: Bantam Books, 1995\).](#)

[Grandin, Temple. *Emergence: Labeled Autistic* \(Warner Books, 1996\).](#)

[Grandin, Temple. *Thinking in Pictures : And Other Reports from My Life With Autism* \(Vintage Books, 1996\).](#)

[Hines, Terence. *Pseudoscience and the Paranormal* \(Buffalo, NY: Prometheus Books, 1990\).](#)

[Jamison, Kay Redfield. *An Unquiet Mind - A Memoir of Moods and Madness* \(New York: Vintage Books, 1997\).](#)

[Kramer, Peter D. *Listening to Prozac* \(Penguin, 1997\).](#)

[Sacks, Oliver W. *An anthropologist on Mars : seven paradoxical tales* \(New York : Knopf, 1995\).](#)

[Singer, Margaret Thaler and Janja Lalich. *Crazy Therapies* \(San Francisco: Jossey-Bass, Inc., 1996\). Review.](#)

[Storr, Anthony. *Feet of Clay - saints, sinners, and madmen: a study of gurus* \(New York: The Free Press, 1996\).](#)



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Too Good to Be True



DielectroKinetic Laboratories LifeGuard

A reader of the *Skeptic's Dictionary*, recently wrote:

It seems that the [Quadro Tracker](#), which you have included in your Dictionary, has reincarnated (if not, then we have proof here that great minds think alike). A company named [DielectroKinetic Laboratories](#) has manufactured 3 versions of a remote heartbeat detector, the DKL Lifeguard, and is trying to sell them to various government agencies for the purpose of detecting the presence of humans up to 500 yards away. The cheapest model, at \$6000, doesn't even require batteries or any power source! [Note: the most expensive model costs \$14,000.]



I saw and tested their products first hand at a government-sponsored exhibition last September, where hundreds of vendors came to demonstrate equipment that the government could buy for force protection. I immediately recognized their equipment as the "high-tech" version of the dowsing stick. Each has a box which swivels on a pistol grip and has an antenna pointing out the front. You swing the antenna back and forth, and the device is supposed to generate a tug on your hand whenever the antenna is pointing toward a person. The answers they supplied to our questions were typical of scam artists' talk, and would have been very entertaining if not for the fact that a lot of people there actually believed them.

My supervisor, who is a world-rekknowned expert on sensor technologies, pointed out to them that the antenna was an omni-directional antenna, and they are pointing the null (its weakest direction) at the target. And their answer was: "Well, yeah, the antenna IS omni-directional, but the ELECTRONICS are directional." Total nonsense to an electronics engineer.

The scientific gobbledegook used by DKL is overwhelming and could easily dupe the untrained with their talk of electrostatics, electrodynamics, electromagnetics, dielectrokinetics, and dielectrophoresis. But the focus here will be on what they claim their product can do, not how it does it. According to DKL,

DKL's new line of LifeGuard instruments can locate and track any living human being more than 500 yards away in the open and at shorter distances through concrete walls, steel bulkheads, heavy foliage, earthworks, or up to 10 feet of water. All three LifeGuard models can detect and lock onto a person in three to five seconds, and they can distinguish a human from any other animal, even a gorilla or an orangutan.

One wonders, however, how this amazing device tells the difference between the person who is operating it and any other person. If this thing really works as specified it should be useless because the person using it would always set it off. After all, DKL claims that

DKL's detectors locate and point toward a small irregular electric field generated by a human heart. And because the heart generates its electric signals at ultra-low frequencies, less than 30 cycles per second, they travel right through barriers that absorb or reflect higher frequency energy.

Why would anyone want such a device? It could be used to find lost children in the forest or who wander into the gorilla or orangutan area of a zoo. It could be used to locate criminals who are trying to hide from you (assuming no one else is around and you can somehow turn off your own heartbeat while you use the LifeGuard). It should be a big seller with the same crowd who bought the Quadro Tracker: local, state and federal police agencies with lots of taxpayer money and little accountability.

note: the DKL LifeGuard was tested by [Sandia Labs](#) in April 1998. The device failed to perform any better than expected by chance. In October 1998 Sandia took a DKL LifeGuard apart and found that the [electronic components could not possibly function as advertised.](#)

Whether in response to the Sandia tests or in response to increased criticism of their claims, I don't know, but DKL has changed its claims on its Internet site. It no longer features a collapsed building with the message that a DKL product would save the lives of those trapped inside. The featured come-on now is that the LifeGuard can detect stowaways on a truck. Also, the ads now say that the products can detect *people*, rather than *heartbeats*. It has removed some of its so-called scientific tests and replaced them with others, including one regarding the detection of stowaways on trucks.

Is this a major problem in your neighborhood?

further reading

[reader comments](#)

- **["Dowsing for Dollars: Fighting High-Tech Scams with Low-Tech Critical Thinking Skills"](#) by Robert Todd Carroll**
- **[Mass Media Bunk](#)**
- **[Mass Media Funk](#)**
- **[Dr. Keith Conover's DKL Page](#)**
- **[The DKL - Electroscope Connection](#) by Sam R. Scafferi**
- **[DKL the whole enchilada](#) by ?**
- **[What's New](#) by Bob Park, American Physical Society and more [What's New](#)**
- **[James Randi on DKL's refusal to take \\$1,000,000 from him](#)**

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[The Skeptic's Refuge](#)

[More Too Good to Be True Opportunities](#)





reader comments:

psychic

7 Dec 2000

Hello, I have recently learned that my 50 year old sister has been taken in by Sylvia Browne, hook line and sinker. Isn't there some way that, under current consumer protection laws, that Sylvia can be charged with false advertising? There must be a way that we can stop her kind from taking advantage of people's gullibility. If there isn't, there should be. Just because her victims don't complain, doesn't make it any less a travesty. What can I do to help expose the people for what they are?

Bill

reply: According to an online article at <http://www.post-gazette.com/magazine/19990119psychic1.asp> 17 states have laws against fortune telling. Maybe yours is one of them. Another [article](#) reveals that psychics are sometimes charged with crimes. But, most so-called psychics seem to be able to get away with their capers unless their clients complain to the police. Many who have been ripped off by a pseudo-psychic, i.e., a psychic, feel too stupid to file a formal complaint. But there are so many satisfied customers, one is likely to find the citizen brigade storming the skeptic's camp rather than rallying around the fighter of fraud.

03 Dec 1999

In studying the strange behaviour of subatomic particles like photons in quantum experiments Einstein coined "spooky action at a distance" to describe the apparent ability of photons, etc. to know what's going on elsewhere and behave accordingly. The Copenhagen interpretation of these bizarre results posits that photons, electrons and even entire atoms in their 2 slits experiments have no concrete existence but exist as probability waves until an observation of the experimental result collapses the probability function and causes a determinate result. Nobody has ever said how this mental causation is transmitted or how it works, but the Copenhagen interpretation is taught in all the physics departments.

In his book, Schrodinger's Kittens and the Search for Reality, John Gribben presents John Cramer's alternate explanation for the 2 slits experiments, the "transactional interpretation". Cramer thinks that energetic entities (electrons, photons) constantly emit "information waves", and that before the entity can actually DO anything there has to be an "offer wave", a

"confirmation wave", and an information "handshake" with whatever the entity will interact with. The information waves and transactions occur in an "atemporal" space (and Einstein, again, showed that the subjective perception--the frame of reference--of something approaching the speed of light is that time slows, and time stops at light speed, so if the information travels at lightspeed it would happen in 'no time' as Cramer requires). This is how the entities in 2 slits experiments seems to know beforehand how they should behave in the experiments.

Cramer apparently claims there are mechanisms in place that prevent "leakage" of the atemporal information into our temporal space, but his interpretation requires that the information waves travel backwards and forward in time without taking any time to do so. A logical consequence of this is that, ultimately, all of the "information" about everything that has ever happened or ever will happen coexists simultaneously in this atemporal space. Gribben doesn't say what kind of waves the information travels on, but all waves are vibrations at whatever frequency, so if people somehow become attuned to a frequency on which some of Cramer's advanced waves (traveling backwards in time, if viewed, from our frame of spacetime reference; as contrasted with "retarded waves" traveling forward to our 'now' from our past) exist then they'll be receiving information about some future event (precognition), and if somebody happens to latch onto the frequency of some dead or distant person's experiences (assuming that consciousness is electromagnetic and thus works like other e/m entities like photons and electrons so that the overall e/m structure of an experience behaves like an e/m unit--sending and receiving information waves) they will experience "past lives" or "distant viewing".

reply: I knew there was a point to this somewhere.

The anecdotal evidence that people actually experience such things is quite compelling, and Cramer's lucid interpretation of quantum strangenesses [?] offers the means of explaining these "paranormal" phenomena quantum mechanically. Considering that practically the entire subject matter of science is "phenomenal"--our awareness of reality begins with visual and other sensory experiences of "phenomena"--I don't think paranormal phenomena reported by people should be off-handedly skeptically dismissed merely because science does not yet possess the intellectual tools to explain them. With William James I say experience should be held as prior to conceptual systems in our ranking the credibility of "realities", so if even a very good conceptual system like modern science cannot explain widely experienced phenomena then that shows a shortcoming in the conception, NOT in the perception (I'm familiar with Willard Quine's "core/periphery" view of our neural net, so I'm not simplistically assuming that conception does not affect perception and vice versa). But I think Cramer has given science the tools to begin understanding temporal oddities like precognition, etc., so that this area, at least, of "paranormal" perceptions can be 'normalized'.

Quantum physics has shown us that the reality underlying our everyday perceptions of a clockwork Newtonian universe is far stranger than appearances would lead us to believe, though philosophy and intellectual culture in general have failed to embrace this decades old development and are still stuck in the 19th century scientific paradigm where everything is ultimately predictable--in principle if 'not yet' in practice. The probability equations of modern physics do not preclude the possibility that the improbable might occur, and I think the improbable in fact does occur with surprising frequency. No "laws" are broken when the improbable occurs because the laws of classical physics are merely laws of 'averages', and the very term "average" presumes a whole range of actual cases occurring away from the center. So to presume that human experiences that fall outside the range of "normal human experience" are suspect simply because of their relative rarity constitutes a material fallacy: the "conceptualist fallacy" of an entrenched Newtonian.

Derryl Hermanutz

reply: Obviously, we disagree. I think explanations for psychic phenomena are to be found in the brain (by neuroscientists), in misinterpretation of perception, and in fraud rather than in some bizarre application of quantum physics. I recommend Victor Stenger's *Physics and Psychics: the Search for a World Beyond the Senses* (Buffalo, N.Y.: Prometheus Books, 1990).

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vinyl vision

Vinyl vision is the ability to see groove patterns in vinyl recordings and correctly identify musical recordings without the benefit of identifying labels. Only one person is on record as having this amusing ability: [Dr. Arthur B. Lintgen](#), who demonstrated his talent in the 1980s to none other than [James Randi](#). Even though Randi promised to pay \$10,000 to anyone who could demonstrate a [paranormal](#) ability, Lintgen's ability is merely *abnormal*, i.e., rare. Hence, his award was little more than a few moments of fame.

Once it was disclosed that he used ordinary sense perception, his vast knowledge of orchestral music from Beethoven onward and of recordings of such music, and deductive inference from general rules about such music, the mass media and the public lost interest. Though Lintgen continues to have a core following of true believers in his psychic powers, based on such astounding feats as identifying Beethoven's "Fifth Symphony" from across a room without even looking at the record, most consider Lintgen a decent fellow for not abusing his power over the gullible. He admitted, for example, that Beethoven's "Fifth" was the most common recording he was asked to identify (Seckel). He was simply making an educated guess, not using psychic powers, when he identified the recording without looking at it.

Lintgen did not claim to read individual notes in the record grooves. "The trick is to examine the physical construction of the recording and look at the relative playing time of each one of the movements or separations on the recording" (Seckel).

All phonograph grooves vary minutely in their spacing and contour, depending on the dynamics and frequency of the music on them. Lintgen says that grooves containing soft passages look black or dark gray. As the music gets louder or more complicated, the grooves turn silvery. Percussive accents are marked by tiny "jagged tooth marks." The doctor correlates what he sees with what he knows about music, matching the patterns of the grooves with compositional forms (*Time*, January 4, 1982).

According to Lintgen, a Beethoven symphony will have a slightly longer first movement relative to its second movement, while Mozart and Schubert would compose in such a fashion that each movement in many cases would have the same number of bars. Beethoven, however, had set out in a new direction and that changed the dynamics of the recording. In addition, if there was a sonorous slow

beginning, one could look at the recording at that point and see a long undulating groove that would not contain the sharp spikes that would identify sharp percussion (Seckel).

Lintgen was featured on the ABC-TV program "That's Incredible" in 1981. Before a live audience in the auditorium of Abington Hospital, near Philadelphia, he was tested by Stimson Carrow, professor of music theory at Temple University. Dr. Lintgen correctly identified 20 out of 20 recordings just by studying the record grooves (Holland).

He admitted that he used only his knowledge, experience, and reasoning power to accomplish this amazing feat. "I have a knowledge of musical structure and of the literature," he said. "And I can correlate this structure with what I see. Loud passages reflect light differently....Record companies spread the grooves in forte passages; they have a more jagged, saw-tooth look. I also know how the pressings of different labels look, so I can often figure out who is conducting" (Holland). He can also occasionally figure out the nationality of the orchestra, an ability that amazed even James "The Amazing" Randi. In Randi's test of Lintgen, the doctor not only identified a recording correctly but announced that the orchestra was German. The recording, he said, had an upturned edge, a feature that was unique to the Deutsche Grammophon label. He also saw that there was a "lack of junk in between the grooves," from which he inferred that the recording was digital. He also knew that "Deutsche Grammophon, up to that time, had only recorded German orchestras for their digital recordings" (Seckel).

Lintgen discovered his unusual ability at a party in the mid-1970s. Some friends said that he knows so much about music he could probably read the grooves of records. He tried it and found that as long as the recordings are of music that he knows--orchestral music from Beethoven to the present--he has a high rate of success.

The rest, as they say, is on the record.

further reading

- [The Record Reader](#) - Urban Legends Reference Pages by Barbara and David P. Mikkelson
- [The Man Who Could Read Record Grooves](#) by Al Seckel, *Los Angeles Times*, October 19, 1987
- [Read Any Good Records Lately? A Philadelphia physician has, and his secret is in the groove](#) (*Time*, January 4, 1982).
- [A Man Who Sees What Others Hear](#) by Bernard Holland, *New York Times*, November 19, 1981



reader comments:

psychic detectives

29 Jun 1996

Mr. Carroll

You didn't mention one of the few certifiable facts about "criminal psychics." In some well-documented cases, they themselves are the killer, and simply looking for a way to confess.

Source: *Mind Hunter* by John Douglas and Mark Olshaker

Joe

According to the sci.skeptic FAQ, On one occasion Randi did agree that the claimant had passed the test. Arthur G. Lintgen claimed an ability to identify LP records without labels. Randi tested him, and found that he could in fact do this by reading the patterns of loud and quiet in the groove. Lintgen did not get Randi's reward because he had not demonstrated (or claimed) any paranormal ability.

While a Usenet FAQ is obviously no guarantee of truth, I think you should at least check the details.

--Gareth Rees

reply: The idea of "patterns of loud and quiet in the grooves" of vinyl records strikes me as very odd. I own a good number of such items and until CD's came into my life played them quite regularly. I have looked very closely at the grooves of a few records and I defy anyone to identify anything that looks like a pattern of anything, much less of "loud and quiet" in those grooves.

In any case, musical tones have four distinct qualities: pitch (frequency of vibrations), duration (length of tone), intensity ("loud and quiet", more or less) and timbre (due to the production of different overtones, different instruments playing the same note will sound different). Unless you are a record needle, you are not likely to perceive any of these qualities with the naked eye. Just examine a few records and you'll see what I mean.

The man with "vinyl vision" can only read record grooves with classical music in them. Such music in general has quite complex "patterns of loud and quiet." However, I doubt that even an audiophile with a great record collection could identify very many classical compositions if presented the sheet music for the piece without musical notation but with complete references to *pianissimo*, etc. A trained conductor or performer might be able to do this, however, but not because knowing the "pattern of loud and quiet" indicates what the music sounds like, but because of knowledge and familiarity with the sheet music. I suggest that if someone can tell you what a classical record is without seeing the label, he is using knowledge and experience, not "vinyl vision" or any extraordinary power.

There was a time when I could have told you whether you were holding my Ray Charles or my Bob Dylan album. I only owned two albums at the time and they were physically quite distinct. I still remember one of them (I think it was the Ray Charles record) as being significantly thicker than the other. In addition, I got to know the scratches on each and could have told you which was which just from the extraneous markings I'd managed to create on each. But the main piece of information which distinguished the records was the number of bands and the size of the selections between bands. An audiophile might well be able to tell you what recording you have in your hand simply by looking at the bands and bandwidths on the record.

Also, the man with "vinyl vision" claimed he could sometimes identify the conductor of the recording. I doubt if "pattern of loud and quiet" would be of much help in identifying the conductor on more than a very occasional basis (e.g., one might be able to do it for the over-recorded Pachelbel's *Canon*, but even there the main difference in treatment seems to be tempo rather than intensity). However, due to physical differences in records put out by different record companies, the same composition by different orchestras and with different conductors might be identifiable by physical differences in the vinyl record.

A comment on your piece: You seem to think the case of the guy reading the record grooves is nonsense and was not worthy of serious investigation. I get the impression that eventhough you note that I cited Discover magazine on this, you may not be aware that the positive outcome for him was on a doubleblind test done by Randi for Leon Jaroff (then at that magazine). There really is no question that the guy could identify the music, etc. Luckily for Randi, the guy never claimed his ability was paranormal (as Jaroff pointed out in a CSICOP speech), for Randi might otherwise have had to forfeit his challenge money.
--Marcello Truzzi

reply: I have had other responses to this vinyl vision claim that are similar to yours. Each cites Randi and his test as evidence of believability. The question is: what are we being asked to believe in? That a man looked at the grooves of records and identified the recording? If so, I admit that I have done that myself. Or, are we to believe that there is something unique about his vision (the only one out of 5.5 billion people) who can "read" record grooves? That's the claim I can't fathom and it's the one I compare to claiming that Chinese children can read newspapers by sitting on them through some unique anal ability.

9 Dec 1996

I've read some entries from your dictionary, and as a skeptic I found it very interesting and informative. One thing puzzled me however - your statements about the inability to see patterns of loud and quiet sounds on vinyl records.

I remember from my childhood that I was often able to recognize where the music is loud and where it is not - my mother was surprised when I told her about this, but when I explained how it was done, she was able to repeat it herself. There is nothing unusual about it - the surface of a record does look differently in places where volume differs greatly. Of course, I do not claim to be able to spot [changes in] one or two seconds of volume change - it takes at least several revolutions of the record (30 seconds at least) for the effect to be visible.

Your observation that "vinyl reader" was able to "see" only the classical music converges with my experience - pop music is mostly the same over a song's duration, which makes it impossible (at least for me) to "read" it.

Considering what I've written above, I do not see anything unusual in fact that someone was able to remember how these patterns of loud and quiet are positioned on many records and distinguish among them with this technique. More surprising is the fact Randi didn't know about this.

Miloslaw Smyk

reply: Take a look at ["The Man Who Could Read the Grooves"](#) by Al Seckel. Dr. Lintgen's technique was pretty simple.



[psychic detectives](#)



reader comments:

psychic surgery

06 May 2000

Stephen Turoff, the so-called psychic surgeon, is well known to me. I went to see him about 2 years ago.

You wait in his surgery while endless films of Sai Baba play. Sai Baba has been exposed as a sham and a charlatan in several books and also the [Skeptic's Dictionary](#). There are [books on the www](#) exposing him too.

Stephen Turoff is a follower of Sai Baba.

In the Turoff surgery are many people - all foreign - and most with no command of English. This 'free' healer takes £200 in under ten minutes.

I saw him for spasmodic torticollis.

He had never heard of dystonia but nevertheless performed an 'operation', i.e. his 'guide' did.

He then pronounced me as being completely cured.

I felt nothing - especially no benefit.

Stephen Turoff was then investigated by the tax authorities.

That's all I know.

chris sivewright



reader comments:

pyramidiocy

16 May 2000

I work in an office building at L'Enfant Plaza in Washington DC. Recently, the quadrangle in front of my building was renovated to modernize and waterproof it. One of the highlights of the new design is a massive skylight in the shape of a right rectangular pyramid.

The pyramid is over a sitting area on the shopping mall, one level down.

I've been keeping my eyes on the sitting area to observe any significant pyramid-generated effects. I felt I had to report the first of them.

Overnight, actually over a weekend, what was originally a bleak area with a few benches and some empty planters has become a jungle! Plants are everywhere! They are not seedlings or sprouts, but full-grown, mature plants. Obviously, the pyramid focusing the solar energy into this previously-unlighted area caused a previously unknown rate of photosynthesis. Plants which are obviously several years old sprang up as if drawn there by some cosmic force. I'm convinced the pyramid caused this, there can't be any other reason.

I'll keep watching the pyramid area and report any more unusual or unexplainable events.

I have to stop at this point. My tongue hurts too much for keeping it firmly in my cheek for so long.

Andrew Kapust

3 Jan 2000

Thank you for your overview of pyramidiotical pseudoscience. I was hoping that you might one day pay attention to all the BS going around surrounding Ancient Egypt. My only complaint is that the isn't extensive enough, but then the subject deserves a debunking site of its own.

If you can tolerate lots of nonsensical mail on top of what you're already getting, I could mention the page on www.guardians.net, a major Ancient Egypt site. While the main thrust of the site and its bulletin board is scientific



SkepDic.com

[The Skeptic's Refuge](#)

Internet Bunk features WWW sites that provide false, misleading or deceptive information regarding scientific matters or alleged paranormal or supernatural events. Because there are millions of such sites, we try to present only the most egregious and offensive. Readers are encouraged to send *Internet Bunk* material to:

btcarrol@skeptdic.com

Internet Bunk

Pharaoh's Pump Foundation

Steven Myers has created this Internet site in honor of his hero Edward J. Kunkel and his book *Pharaoh's Pump*. Kunkel argued that the great pyramid in the desert at Giza was a [water pump](#).

Myers has created The Pharaoh's Pump Foundation, which, he claims, is going to build a pump using ancient Egyptian technology. He is accepting donations. Even if it were true that Giza was a water pump in the desert, why bother to build a copy of a pump that's been broken for thousands of years? Because the "ancient pumping technology is nonpolluting and does not require fossil fuels or electricity to operate." Just like windmills! Not quite. According to Myers, the pyramid pump was fueled by fire. I am just guessing here, but I think if it was fueled by fire, something had to burn. I guess they burned all those forests that used to be in the desert, or maybe they burned some magic non-polluting fuel brought in by aliens.

Apparently, Myers envisions a countryside dotted with pyramids, pumping our polluted rivers and streams into our polluted cities and out to our poisoned and mineral-depleted farmlands.

Myers' visions seem to have been stimulated by his reading of *5/5/2000: Ice: The Ultimate Disaster* by [Richard W. Noone](#), a cult classic which, among other things, predicts doomsday on May 5, 2000, when Mercury, Venus, Mars, Jupiter, and Saturn will be aligned with Earth. This alignment, he says, will cause the polar ice caps to melt. Since Noah won't be around to build an ark for us, we'll need pyramids to pump all that water away from our cities. Otherwise, we drown. It seems of little interest to Myers that [astronomers are well aware of the upcoming alignment](#) and do not see why there is concern. [It's happened before and it will happen again.](#)

The notion that Giza was a water pump is bunk, according to the most recent issue of *Skeptic* magazine (Vol. 7 No. 2, 1999). In the "Skeptic's Forum" there is a letter from Norman Cohan, Director of the [Karpeles Manuscript Museum](#) (Santa Barbara branch), in which he exhorts readers of *Skeptic* to "reexamine the latest evidence with respect to the bewildering construction techniques utilized in the Great Pyramid of Giza, as presented in Christopher Dunn's new book [The Giza Power Plant](#). Giza was not a water pump but a power plant! Dunn [claims](#) that the Giza power plant worked "by responding harmonically with the seismic energy contained within the Earth." He claims that "the Great

Pyramid became a coupled oscillator and drew energy through it and converted it to electromagnetic energy through the sophisticated use of acoustics and quartz-bearing rock." What did the ancient Egyptians use this great power plant for? Among other things, they used it for [levitation](#), according to Mr. Cohan.

Dunn is said to be "[an engineer with intimate knowledge of machine tools.](#)" He went to Egypt and became convinced that many of the artifacts created by the ancient Egyptians had to be done using precisely machined tools. Once he believed this, it was not difficult for him to see evidence everywhere ([confirmation bias](#)) and see everything from the smallest artifact to wall carvings and papyrus paintings to the pyramids themselves as requiring advanced technology. [Margaret Morris](#) (*The Egyptian Pyramid Mystery is Solved*) thinks Dunn is all wet because he didn't realize that the stones the Egyptians used to build the pyramids weren't natural and didn't need to be cut from quarries. The stones are synthetic and were made by adding water to "earthen materials" and shaped while soft.

Myers and those who see Giza as a water pump have also deluded themselves. How easy it is to find supportive evidence for our hypotheses! And how powerfully strong our arguments seem when we selectively present our facts and make no effort to find contrary evidence. It is especially easy when our audience isn't knowledgeable enough to know what's been left out or how plausible one's claims are.

What next? That mummies were repositories of vibratory chi? That all those centuries of hieroglyphics that give no indication of a high-tech society, were done that way so that future generations wouldn't know how advanced the Egyptians were? That those ancient historians, such as Herodotus, who are brought in to support the view that the pyramid was a water pump because he says he saw water around it, omitted mentioning that the Egyptians had created a huge water pump in the desert? Maybe Herodotus, not being from [Atlantis](#), couldn't tell the difference between a water pump and a power plant. Fortunately, our modern day alternative "scientists" can. They just don't realize how easy it is to deceive ourselves into believing something simply because we can find confirmation for our belief in the form of data that is consistent with the belief, or is easily molded to be consistent with the belief.

See related entry on [pyramidiocy](#).

further reading

- [Pyramid Schemes: A Brief History of the Mysterious Monuments](#) by **D. Trull**
- [Pyramidiots](#)

reader comments

05 Jan 2001

I have just been reading your debunking of the pharaohs pump. Firstly - I am a skeptic. I found this stuff on the internet and thought it was very strange. In addition the site does not help itself by linking within one click to perpetual motion 'vortex' machines.

Despite the theory being strange and I myself would need a lot more evidence to be convinced there was a working pump in the pyramid, it is not a truly outlandish idea. About 100 years ago pumps were built along the Murray (Australia's largest river) which consisted of large cylinders bored into the ground alongside the river. Fuel (oil) and air entered the chamber, were ignited and the pressure forced the water out for irrigation. The volume of the pump was about the size of a large room. Nothing weird here - simply a large internal combustion engine with water acting as the piston. The engine ran for about 50 years.

One of the problems that would have faced the ancients is they lacked metals - specifically steel. It is very difficult to build engines that can handle any sort of pressure without metals. One solution of course is to dig out a hole in the ground. Large pressures can then be accommodated.

The pharaohs pump page describes a simple ram pump. Again nothing strange about ram pumps. One does of course need a high supply of water, and this small point is glossed over. If there were a high source of water there would be no need to have the pump...

The idea of using a fire to pump a column of water is not strange. Looking at the pharaohs pump page I think they have quite a bit of the physics wrong. If one has a chamber with a fire in it, the simplest solution is to use pressure to force water up higher. One would not need negative pressure sucking water then running the water through a ram pump - seems a bit complex. Also one can't suck water up more than 10 metres before one reaches the vapour pressure of water. The positive pressures from a fire could be quite large - at least 5 atmospheres positive if the fire were burning greater than 400C.

The one fatal flaw I can see in the whole pharaohs pump concept is how one sucks water up from the level of the Nile. One would need another pump on the banks of the Nile which is situated lower than the level of the Nile (as the pumps along the Murray are). Perhaps the source was groundwater - I don't know what the water table level is in that area, but even if it was there probably wouldn't be a great deal of flow.

The pharaohs pump foundation is probably off course (clue - they keep asking for money), but the concept of an ancient underground pump is interesting. I am going to get a hydraulics engineer to critically appraise the concept.

**Dr James Moxham (medical Dr, not engineer)
Adelaide Australia**

[De Camp, L. Sprague. *The Ancient Engineers* \(New York: Ballantine Books, 1977\).](#)

Hodges, Peter. *How the pyramids were built*, edited by Julian Keable (Warminster: Aris & Phillips, 1993).

[MacAulay, David. *Pyramid* \(Houghton Mifflin, 1982\).](#)

more Internet Bunk

- [Richard Milton's Alternative Science](#)
- [The Millennium Group - Science in the Service of Humanity](#)
- [Joe Firmage & The Truth](#)
- [The Junk Science Page](#)

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[The Skeptic's Refuge](#)

Last updated 12/30/01



reader comments:

Raëlians

01 Nov 2000

One can express his opinion freely, but information should be accurate, here are a few rectifications to be made to the following text by Taras Grescoe found on your website.

The Raëlians are UFO-cult (*Cult having a negative connotation, as recommended by the UN, religious minority would be more appropriate*).

His followers consider him to be "the prophet of the third millennium." **Like all good religious leaders, Raël expects his followers to support him. A 10% tithe is the norm.** (*No one in the Raelian religion is paid, Rael does not get any money collected by the different national movements. As a non profit corporation the money and subscription fees are to be spent for the goals of the movement: spreading the Message worldwide and building the Embassy. The 10 % does not go to Rael but to the movement. Rael gets his money from the sale of his books translated in 27 languages and sold at over a million copies. Rael also gets donations.*

According to Grescoe, "Raël's success seems to derive from providing a structured environment for decadent behavior: (*Have you personally witnessed so called decadent behavior? If not then you are spreading false rumors. Sexual freedom is not an obligation*).

Michel Beluet Director, UFOLAND



reader comments:

James Randi

November 08, 2002

I am wondering why the Skeptics Dictionary is not skeptical of the Randi million dollar offer. He gets the interest from the million and if he gives the award away he will lose that interest income, isn't that situation an obvious conflict of interest situation, and one that any intelligent person should be skeptical of ?

Respectfully, William Perron

reply: Randi doesn't have the million in the bank. As you probably know, the prize is in the form of negotiable bonds held in a special investment account.

Also, as you probably know,

The JREF does not involve itself in the testing procedure, other than helping to design the protocol and approving the conditions under which a test will take place. All tests are designed with the participation and approval of the applicant.*

What would be a real conflict of interest would be if Randi got a percentage of the prize should anyone win it. You claim the JREF is getting the interest on these bonds and that these funds would be lost should anyone win the prize. Thus, should the prize be won, the JREF would lose substantial funds. The JREF would also lose face and have to eat crow. It would lose a lot more than this funding should anyone win the prize. My guess is, the JREF would be out of business should anyone win the prize. So would I and every other skeptic who maintains that the likelihood of miracles and paranormal powers is near zero.

You might as well argue that it was a conflict of interest for the University of Nevada (Las Vegas), Charles Tart, and Raymond Moody to take money from [Robert T. Bigelow](#) to set up the so-called Consciousness Studies program at UNLV. If they had failed to come up with some scientific proof of life after death, they would lose their funding. Well, [they did fail and they did lose their funding](#). You are assuming that Randi will never allow anyone to win the prize. But that is what you claim to be proving by claiming he will lose money if anyone wins the prize. In logic, we call this kind of fallacious reasoning *begging the question*.

I think you would have a better chance of a winning argument if you could show that it is logically impossible to prove any paranormal power; therefore, Randi's money is safe and the \$1,000,000 offer is just a gimmick to gain publicity for the skeptical cause.

The "conflict of interest" argument is interesting, but very weak. You might as well claim that anyone who offers a prize has a conflict of interest because they will lose the prize when it is given away.

Mr Perron replies:

Dennis Rawlins, a co-founder of CSICOP in his article titled sTARBABY quotes Randi, when he is asked about his then ten thousand dollar offer that he said " I always have a way out." He is the final word on the give-away of the money, it will never be given away, but certainly not for the reasons that you suggest at your site. To say that there is no "paranormal" events is ridiculous, I myself have had at least on one mystical experience so I know that they are possible. The jackals bark and the caravan moves on.

**Not so respectfully,
William Perron**

reply: I don't deny that people have mystical and paranormal experiences. What I deny is that anyone knows that the origin or cause of those experiences is supernatural or paranormal, rather than natural. I reject your *interpretation* of your experience, not the reality of it to you.

29 Sep 1999

I was browsing the net the other day when I came across a web page for [Riley G](#). Your hero, James Randi was allegedly tied in with a Sex Tape and teenage boys. If this is true, I think you should select another idol, Mr. Carroll. I'm sure your colleagues would be disappointed with your choice of leaders to fight for. I have added the section from Riley G's site on this e-mail.

Awaiting my e-mail on your website,

Prof. Marco Beriolle

reply: Professor Beriolle seems to believe Riley G has some credibility. I wonder on what basis. I would be a bit more careful about what I admitted I do with my spare time, if I were the Professor. But if participating in the spreading of vicious innuendo is what you want to be known for, so be it.

P.S. I think he's talking about you in the next to last sentence.

[from Riley G's page]

And just how can you claim I screwed up on something when you can't even get the persons name correct. Sure, someone claiming to be from the Miami PD sent me a photo of a death scene that looked like Andrew Cunanan. I had this photo on my web site for about 1 week before I debunked it myself when the evidence proved is was not Andrew Cunanan.

As to your remarks about me never backing up my claims that I was NYPD, I suggest that you do better research. Hell, even the Septic Cult leader James Randi ate crow on that one. And speaking of the gutless wonder (Randi). He has always hated the fact that I have a copy of the court transcript and cassette tape of the infamous Sex Tape and other assorted items with what appears to be underage teen-age boys!

For the record, Randi refused me twice to take his psychic challenge. All I requested was direct access to the SAME DATA AFTER the tests, and for it to be done LIVE in front of an TV audience. This is something that would keep RANDI and his CULT honest, but he refused. Geez, I wonder why?

Prof. Marco Beriolle

reply: I suggest that if you want to quote from the gutter, Professor Beriolle, you have your reasons. Allying yourself with Riley G is not something I would let my colleagues know about, however. For those who have never heard of Riley G, you are lucky. He is a self-declared psychic detective, claims he used to be a police officer (but was retired due to injury after three years), is an actor, entertainer and remote viewer. He also refers to himself, for reasons known only to Mr. G, as The Minister of Propaganda. He says he rides a Harley and is a friend of [Uri Geller](#)'s, too. On his website, he has the following notice: "All graphics and text contained within these web sites remain the property of Riley G & Squatting Dog Productions and can not be reproduced or altered without the permission or consent of Riley G"

You like this Squatting Dog fellow, Professor?

Riley G once sent me an e-mail and asked why there was no page on Riley G in the Skeptic's Dictionary. I looked at his website and determined that he was perhaps not the most stable person on the planet and that it would be best to leave him alone.

I suspected Mr. G or one of his friends was behind the recent smear

campaign that I wrote about in [Mass Media Funk](#). Riley G denies it and says he does not condone such stuff. (See his comments below.) He sounds like a swell fellow to associate with, Professor. Perhaps *you* are the anonymous author of both the e-mail and the slanderous website on Freeyellow.com that was removed after I complained about it. If so, please come forward and identify yourself. It seems shameful that such eloquence should hide in the darkness of anonymity.

01 Oct 1999

(Sender psicop@pop.pipeline.com)

I suggest that you get your facts straight. I have nothing to do with the Randi Site, and I don't condone it!

BTW, there is no period (.) after the last name of G (Riley G).

Riley G

Blood Brothers MC Founder & International President

<http://www.BloodBrothersMC.org>

reply: I'm glad to hear it, but I'm surprised that I heard from you before the Professor responded. I have a feeling you are not a daily reader of the Skeptic's Dictionary, so I assume the Professor informed you of these comments. Where are you, Professor?



[James Randi](#)

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Search the Skeptic's Dictionary



reader comments:

reflexology

7 Jun 1999

A true skeptic reviews the facts before making a judgement. There are studies on reflexology including Medline. Your biased piece shows that you haven't reviewed the facts. Shame on you.

Kevin Kunz

Reflexology Research Project

reply: I took the bait and checked out Kevin's page on "[controlled studies in reflexology](#) ." He lists 34 studies, most of them done in China for the Chinese Society of Reflexology or the China Reflexology Association. A couple were done for the Danish Reflexology Association. None of the studies were published in a reputable refereed scientific journal. The reader is invited to check out the list. You will probably be as impressed as I was.

Kevin Kunz replies, heaping more shame on me:

You said there was no research on reflexology. There is. You didn't retract your statement. You may take issue with the studies done but you can't say there hasn't been studies on reflexology. There are studies on Medline. Shame on you for not telling it straight.

Kevin Kunz

Reflexology Research Project

reply: I can't find where I claim that there has been no research on reflexology. I do say that there is no scientific evidence for the claim that each part of the body has a corresponding double in the feet. I do say that there is no evidence that chi, yin, yang, separate bioelectrical charges or energies are key factors in health. I'm especially puzzled by Mr. Kunz's reply, since I posted his first comment and even linked to the studies he is so proud of.

A search of [Medline](#) for "reflexology" yields some interesting results, e.g., "Physiotherapy as manual therapy," "Effective techniques for massage in labour," "Using massage in the care of children," and from the *Journal of Nurse Midwifery*, "Acupuncture and acupressure. Applications to women's

reproductive health care." Apparently, Medline equates reflexology with massage.

19 Nov 1999

You wanted scientific. Here is a controlled, randomized study from Medline. Will you be putting this up on your site. Or do you strictly stick to polemics devoid of science? [Reflexology Forsch Komplementarmed 1999 Jun;6(3):129-34[Anderung der nierendurchblutung durch organassoziierte reflexzonen-therapie am fuss gemessen mit farbkodierter doppler-sonographie] by Sudmeier I, Bodner G, Egger I, Mur E, Ulmer H, Herold M Universitatsklinik fur Innere Medizin, Innsbruck, Austria. [Medline record in process]]

Using colour Doppler sonography blood flow changes of the right kidney during foot reflexology were determined in a placebo-controlled, double blind, randomised study. 32 healthy young adults (17 women, 15 men) were randomly assigned to the verum or placebo group. The verum group received foot reflexology at zones corresponding to the right kidney, the placebo group was treated on other foot zones. Before, during and after foot reflexology the blood flow of three vessels of the right kidney was measured using colour Doppler sonography. Systolic peak velocity and end diastolic peak velocity were measured in cm/s, and the resistive index, a parameter of the vascular resistance, was calculated. The resistive index in the verum group showed a highly significant decrease ($p \leq 0.001$) during and an increase ($p = 0.001$) after foot reflexology. There was no difference between men and women and no difference between smokers and non-smokers. Verum and placebo group significantly differed concerning alterations of the resistive index both between the measuring points before versus during foot reflexology ($p = 0.002$) and those during versus after foot reflexology ($p = 0.031$). The significant decrease of the resistive index during foot reflexology in the verum group indicates a decrease of flow resistance in renal vessels and an increase of renal blood flow. These findings support the hypothesis that organ-associated foot reflexology is effective in changing renal blood flow during therapy.

PMID: 10460981, UI: 99392031

Kevin Kunz

reply: I have to admire Kevin's tenacity. Perhaps others will duplicate this study and soon we will have hundreds of such studies showing that there is a correlation between parts of the foot and all of the organs of the body. This is a most interesting approach to science. First we invent the theory and then we go looking for confirmatory evidence. Who knows? Maybe this approach will work for reflexology, but it seems they have a long way to go and are taking the long way home. (Scientists do not first give an explanation and then seek for something to explain.) The risk of [confirmation bias](#) is exceeding high with such a methodology.

I hope Kevin realizes that such a small study should not be taken as final. I hope he also realizes how much faith I am putting in him by publishing these claims.

22 Nov 1999

It is fortunate the nonplussed Kevin mentioned MEDLINE, in his harangue.

This site - MEDLINE - among others, most notably WebMB, are loaded with alternative remedies, conjectural essays and authoritative-sounding discourses with no references or citations.

Some of the 'strategic partnerships' for these sites between, say, Cnn's WebMD and those listed on the home page are very questionable - with a decided lack of scientists and scientific institutions.

Most of the partners I have checked that WebMD claims are vitamin stores or shadowy organizations within a few miles of CNN center. The online chat 'experts' are usually vitamin charlatans who sell their wares on the WEB.

Try typing in "Gingko Biloba" in the search window of one of these sites sometime. You will find many, many glowing articles. I have personally done this and found enlightening pieces purporting to be full of scientific data. Alas, the article that sounded the best was signed "ANON" and the next best one was signed "D. Jones", or something like that... Surprising some of these sites haven't been sued by folks experiencing bad results or no results.

Indeed, a search on MEDLINE for many quack cures turns up articles suspiciously non-critical, seeming to imply good results for substances the FDA has banned.

I would NOT do any research nor attempt to retrieve data held to be valid on these sites !

Chris_Long

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[SkepDic.com](http://skepdic.com)

Search the Skeptic's Dictionary



reader comments:

reiki

26 Jul 1999

I'm not sure what your information source is, but I wish to comment on part of the entry for Reiki at your site.

Reiki healers differ from acupuncturists in that they do not try to unblock > a person's ki but to channel the ki of the universe so that the person heals.

Actually, by channeling the Reiki energy, a practitioner does unblock the [chakras](#) and natural flow of energy in the patient.

The reiki master claims to be able to draw upon the energy of the universe and actually increase his or her own energy while performing a healing.

NO! Reiki practitioners never claim to be channeling anything but Reiki. Personal energy is NEVER used. Anyone who claims to be using personal energy to heal is NOT using Reiki.

reply: I didn't mean to imply that the reiki healer uses personal energy to heal, but that the healer's energy increases during the healing....or so some healers say.

Reiki healers claim to channel reiki into "diseased" individuals for "rebalancing." If the healing fails it is because the patient is resisting the healing energy.

Reiki practitioners channel Reiki into anyone desiring it. Most importantly, any ethical practitioner will tell the client/patient that Reiki is NEVER a substitute for medical treatment, but only a way of assisting healing. Reiki DOES NOT guarantee a cure, and the ethical practitioner WILL NEVER tell the patient that they are to blame if they are not healed. They will, however, explain that Reiki energy always works toward what is the highest good for the patient. That is not always a cure... sometimes it is just an acceptance of dealing with an incurable disease.

reply: I'm glad to hear this, but some of your colleagues apparently do not

agree with you.

I humbly suggest that you do a bit more research into Reiki and update your misleading and erroneous entry.

Lisa Rodrigues Reiki Master/Teacher, Usui Shiki Ryoho

reply: Take a browse of some of the sites I link to on the reiki page. You may be surprised at what your colleagues are claiming.

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SkepDic.com

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reader comments:

reincarnation

03 Jan 1998

I was on the net trying to learn more about reincarnation when I stumbled upon your wonderful Skeptic's Dictionary. I'm a fourteen year old agnostic/existentialist and I found your pages incredibly fascinating and educational. I think the best part about being skeptical is how one's beliefs don't sway the facts. I mentioned my interest in reincarnation, and I saw a lot of pages, but they were so opaque and dogmatic I couldn't attempt to learn anything about it. In conclusion thank you for putting up the wonderful, informative sites and know there are probably many people like myself who are just as grateful.

Emily

Dec 1996

You missed an interesting problem in your essay on reincarnation. You mention Buddhism as a major religion that includes reincarnation, and go on to argue that it must be the soul that is reincarnated, if anything is. One of the most basic doctrines of Buddhism is anatman (anatta), translatable as "no-soul", "no-self", "no-ego", etc. Buddhism specifically regards the existence of the soul (self, ego) as illusory. It would therefore be this illusion, if anything, which is "reincarnated"--or rather, simply continued.

Dan Clore

reply: The reincarnation of an illusion....hmmmm....now there is a concept for the New Age.

31 Dec 1996

I am an Engineer and not prone to illogical things, but I have had a number of things occur in my life to make me curious...maybe you could tell me where to look. About 2 years past I had a dream that still bothers me. I was an officer in the Navy and was in a plane crash in which I died. From this dream I remember the day, and a part of my service number. Could I check this somehow? The day in my dream that I died is troubling for 2 reasons.....in is almost 9 mos to before I was born, and my father in law, whom was very close to me, died on this same

day (only the year is different). Let me know what you think.

Doug

reply: I don't know what you think is so strange or special about your dream, or why it bothers you or puzzles you. I'm not in the dream interpretation business, but if a guy dreams he dies nine months before his birth date, I'd say that is not too pleasant a thought either taken literally or figuratively. Of course, I would take it figuratively. The chance that your dream is a representation of an actual experience is about zero, but I have no doubt believers in reincarnation would take it as evidence for their belief. Figuratively, your dream expresses the notion that you were dead from the moment of conception...not a pleasant thought and one I wouldn't dwell on.

As for the part about the father-in-law...his death date appearing in your dream doesn't seem surprising since you were close to him. Also, I don't know how often dates appear in dreams, but it is often difficult to know for sure whether the source of a date [or for other dream-details] is really the dream. It is often the case that the source is something else, i.e., a waking experience which took place either before or after the dream.

27 Jun 1997

I have come across your Skeptic's Dictionary while surfing the net and was interested in your entry under reincarnation. I would like to remark on this entry in your dictionary.

You state: 'In those ancient eastern religions, reincarnation was not considered a good thing, but a bad thing. To achieve the state of ultimate bliss (nirvana) is to escape from the wheel of rebirth'. This is not true. Reincarnation itself is not a bad thing, it is uncontrolled rebirth that is a problem as one never knows if he/she will have a fortunate rebirth or an unfortunate one. Attaining nirvana does not break the cycle of rebirth but ceases uncontrolled rebirth. Once nirvana is reached one has control over his reincarnation.

reply: Strictly speaking, I suppose, you are partly correct. Good and bad are relative terms and in the strictest terms, there are no "bad" things according to these ancient religions. What is, is. On the other hand, like the western religions, the eastern ones have disdained human existence and created an ideal which is the negation of human existence with all its pains, woes and suffering. However, your notion of nirvana does not match what I have read about Buddhism. Nirvana is the final emancipation, the end of the line, the time for the annihilation of individuality and absorption into the One. Maybe you are thinking of the *bodhisatva*, who delays his or her own final exit to help others reach the promised land. Though, I have no doubt, that somewhere there is a doctrine of reincarnation which not only

allows reincarnation as an inanimate object but also allows one who has reached nirvana to come back as a swan or nuclear bomb if they so desire.

Reading your passage about the soul, I feel that you are making a distinction between the mind and the soul. This is not so, the soul is the mind, not a separate entity. So what is carried on when the physical body dies is just the mind of the being. I would like you to explain the following: 'More promising is the work of those who see consciousness in terms of brain functioning and who try to treat 'mental' illness as a physical problem.'

reply: If I have been confusing, I apologize. Let me clarify my views. The soul is a fictional entity which is claimed to be a substance which can exist independently of the body. The mind is a fictional entity which is claimed to be a substance which can exist independently of the brain. Many, but not all, philosophers equate mind and soul. Philosophers who focus on these fictional entities, rather than on the brain, when trying to understand consciousness and behavior are unlikely to discover much more than a few phenomenological truths. For example, they may discover that a psychotic "mind" creates delusions of being abducted by aliens rather than being visited by the Holy Ghost because the dominant cultural motif is no longer religion but science fiction. Or they may discover that the paranoid "mind" believes it is being followed by the FBI or the CIA rather than the Devil because the dominant cultural motif for power to harm is no longer religion but the government. To me, this does not represent progress in understanding anything interesting about human consciousness or behavior. Those who will provide us with useful information in this area will be those who study the brain and discover the neurochemical and physiological processes which cause psychoses. I believe that neuroscientists are also the ones who will lead to valuable knowledge about the workings of the "normal" brain, e.g., how memory works. A work like [Daniel Schacter's](#) or those of [Oliver Sacks](#) will help us learn more about memory and other functions of consciousness than a dozen books on the "mind" by Plato's or Aristotle's intellectual descendants. Phenomenology may describe hallucinations, but neuroscientists are likely to discover the endorphins and other chemicals which give rise to feelings of levitation, leaving the body, unity with all things, etc.

Also in your writing, you try to argue whether reincarnation is useful or useless. Surely just because a person finds a phenomenon useless does not equate with it not existing. If, say, I found PCs useless, it would not then mean that computers don't exist. If one feels that there is no benefit in believing in reincarnation then why should there be a problem in thinking that way.

reply: My point is that there is no way to tell the difference between a person with a soul which will be reincarnated and a person with a soul which will not be reincarnated and a person with no soul at all. The utility of this idea is all it has going for it, since it is not based on facts or

observations. Its utility has to be found in its ability to explain things or to satisfy some personal desire. I think anything the doctrines of reincarnation or of eternal life can explain can be explained better without reference to a soul. Of course, I exaggerate when I say the doctrine is meaningless and useless: it is so to me. Obviously, the belief is satisfying to billions of people who hate this life but still want to live forever.

My opinion is that reincarnation does explain a host of issues that puzzle scientists and psychologists. One does however need to find authentic teachings on the subject to understand the subject in full.

Neil Williams

Farnborough, Hampshire, England

reply: I guess I'll just have to keep searching for those authentic teachings.

15 Dec 1997

I have some suggestions that may counter some of your arguments against reincarnation.

You said:

"...if we pretend for a moment that the idea of a soul is possible, we can pretend that this soul has either suddenly started existing out of nothing, or it evolved out of something else, or it has existed forever. I don't think any self-respecting believer in reincarnation has claimed that the soul evolved out of something else. So, for the purposes of argument let's assume that each soul either suddenly came into being or they've existed forever."

These are not the only possibilities. You assume the relevance of time to souls. Most sources would agree that souls have no form in the three normal spatial dimensions, so it seems inconsistent that they should have any form in the time dimension either. Note the similarity with the question "what happened five seconds before time began" - questions of beginnings and ends are only relevant where there is a time axis to measure against.

reply: You're assuming that it is the "soul" which persists. In any case, if what persists is outside of time, how does it manage to move in and out of time?

"If they've existed forever and reincarnation is correct, then the world population should remain constant. The world population does not remain constant. Therefore, either souls have not existed forever or reincarnation is not correct."

That is only a valid disproof to a reincarnation theory which requires that:

- 1. all souls available must be incarnated*
- 2. all souls reincarnate instantly, sequentially forward in time*
- 3. all incarnated souls reside on planet earth*
- 4. all souls incarnate only in humans*
- 5. all souls incarnate in only one body at a time*

Here's an alternative model (this one was suggested by the Seth books):

Souls exist external to the normal space-time frame. They can have nil, one, or many incarnations dipping into the timeline at any point (including more than one in the same time), and can incarnate into any lifeform. Incarnations may have complete, partial, or no access to the total soul's facilities, including its "memories" of its other incarnations.

Note that I am not necessarily advocating reincarnation, merely proposing a way in which it could occur which would not be subject to the problems you pointed out.

Julian Morrison

reply: Your model also assumes that it is the soul which reincarnated. I'm willing to grant that it is not the soul that is reincarnated and that whatever it is that persists can move in and out of any living or dead entity in the universe. For all I know, every particle in the universe has a "blah blah" which persists eternally and moves from particle to particle. I have no idea what value such an assumption has, except to make reincarnation of "blah blahs" impossible to disprove.

13 Jan 1998

I really enjoyed your essay on reincarnation, but I have something to add. You and others have mentioned that reincarnation is a ridiculous idea, and not useful, but it is also something else: a complete and total non idea: absolutely meaningless when we look at ourselves as individuals and ask "what are the necessary components that make up me?"

Descartes' idea that "I think therefore I am" is some pretty powerful stuff. I myself am incapable of imagining the concept of "me" if I have no thoughts, memories, sensations - all the things that make up me. Without these, I am no more than an inanimate lump of rock.

This is where the whole criticism of reincarnation comes in. If the "soul" is passed on to another body (and that soul is the true "me"), then I would expect

that next body to remember my former life, what I liked to eat for breakfast as well as personality traits and such. There should be no change at all, if reincarnation is simply the passing of "me" from one container to another. But how many of us remember a damn thing about former lives? And how many that do "remember" these former lives are making money from these memories?

reply: You're assuming it is the "self" which persists, but what if it is the "blah blah" which has no memory, no personality?

Let's just humor these reincarnationists - yes, matter is neither created nor destroyed, so perhaps when I die one or two of my former atoms will help to make up the armor on the back of a beetle, or a lump of earwax in a gerbil. So what?! In conclusion, a soul without memories, personality and continuity is nothing at all. And the concept of reincarnation is a delusion built upon an even bigger delusion.

Oh yes, and another thing: if reincarnation were true, and the "soul" (memories thoughts and all) are passed from body to body, then why don't we see insect labor unions, poetry writing sloths and historian fruit flies? do some slugs dream about their former human lives?

Tony Jensen

reply: We don't need to humor anyone. Those who believe in reincarnation don't necessarily believe that it is the soul which persists. They don't necessarily believe there would be any memory of past lives. They don't necessarily believe that the "self" or "personality" of any individual persists. What they believe is very mysterious.



[reincarnation](#)

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reader comments:

repressed memory therapy

24 Dec 1999

Let me begin by saying how much I enjoy your web site. I try to check it out at least once per week.

I know you are busy, so I'll keep this brief. I have an idea for a new entry in the dictionary: anatomically correct dolls. I am a master's level social worker who practices in San Francisco, CA. While in grad school, I had the pleasure (and good fortune) to study under Dr. Bruce Thyer at the University of Georgia. Dr. Thyer is renowned (and somewhat notorious) in the fields of social work and psychology for being a radical behaviorist whose research focuses on outcome studies of various psychological and psychosocial interventions. It is Dr. Thyer's belief that social workers and other psychotherapists should only utilize treatments that are supported by empirical research. He spent a great deal of time in class debunking "therapies" like NLP, psychodynamic psychotherapy, hypnosis, etc. During one class, he began ranting and raving about the use of anatomically correct dolls (ACDs) in the assessment of child sexual abuse.

Assessments by social workers and psychologists using ACDs are frequently used in court as evidence against alleged perpetrators of sexual abuse. Dr. Thyer challenged our class to find even one journal article that scientifically demonstrated that this form of assessment was useful. He offered extra credit for the first person who could find such an article. No one was able to do so.

This was the first of several disillusioning lectures delivered by Dr. Thyer. At first, I was quite upset at being disillusioned, because I had envisioned myself becoming a psychotherapist. In hindsight, however, I am quite grateful to Dr. Thyer for dispelling so many of the myths that infest my field. You would not believe some of the nonsense that is presented in graduate level social work classes as "therapy".

Anyway, if you would be interested in exploring this topic, I can provide you with additional information. You can also contact Dr. Thyer at the University of Georgia School of Social Work. I'm sure he would LOVE to contribute to your site. Dr. Thyer is one of the most ardent skeptics I have ever encountered.

*Once again, thanks for such an informative site.
(name withheld at author's request)*

reply: The author is correct in noting that anatomically correct dolls are commonly used by those who search for evidence of sexual abuse in children. It is not the dolls, however, that are a problem. It is how they are used to lead and badger children until they come up with a story that satisfies their inquisitors.

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In Mass Media Funk, you will find articles about news stories, magazine articles or TV programs of interest to skeptics, which do not pander to the public's appetite for the occult and supernatural.

Note: because many of the sites linked to here are newspapers or magazines, it is impossible to maintain the links.

Mass Media Funk

2

May 13, 1997. Roger Katz, 50 years old, was caught with a naked 14-year old girl and charged with being a bad boy in Santa Fe, New Mexico. He used to be her social studies teacher, so he was especially naughty, abusing not only the girl but his profession. He told judge Steve Herrera that his relationship with the girl dated back to 640 A.D. Katz claims that in their previous lives the girl took an arrow to the chest on his behalf and saved his life. His current love was just an expression of his thousand-year-old gratitude. As he was being led out of the courtroom to begin serving his 1 1/2 year sentence, Katz told a deputy "This is the price you pay for love." He should have quoted Frank Zappa: "the only thing universal is stupidity."

January 12, 1997. An article in today's newspaper reports that the state of Washington has announced that as of January 1, 1997, it will no longer pay for repressed memory therapy out of a state fund for victims of violent crimes. Over \$2.5 million has been on 325 patients over the past five years to help (mostly) women recover memories of childhood sexual abuse. The decision to halt the funding of repressed memory therapy was based on a critique of the program which studied 30 cases, presumably selected at random, from the 325. Of the 30, 25 were employed at the beginning of treatment; only 5 were employed three years later. Twenty-eight were married when treatment began; 10 were still married after three years of treatment. All 30 were still in therapy three years after treatment began. The report stated that "it appears that the longer the patient is [in] treatment, the more disabled s(he) becomes."

The critique of the Washington program noted that there was no effort made by therapists to verify the accuracy of the repressed memories, some of which were monstrously bizarre, such as eating penises and infants in satanic rituals. The program was defended by Laura Brown, a Seattle psychologist in the forefront of Recovered Memory Therapy. Fantastic memories, she says, are "perhaps coded or symbolic versions of what really happened." What really happened, she's sure, was sexual abuse in childhood. "Who knows what pedophiles have done that gets reported out later as satanic rituals and cannibalistic orgies?" asks Dr. Brown.

On the other hand, who knows what therapists have done that gets reported out later as recovery of memories of horrors suffered at the hands of loving parents?

January 9, 1997. "Junk Science", an ABC special hosted by John Stossel of the news magazine *20/20* was exceptional television journalism. Not only were skeptical viewpoints allowed; they were featured. There was no catering to paranormal prurience. There wasn't much distinction made between pseudoscience and inept, faulty, incompetent or fraudulent science, but on the whole the program was a

refreshing alternative to the junk journalism we usually get with features on Virgin Mary apparitions, UFO sightings, and tearful testimonies taken as proof of causal connections.

The show began with a listen-in on various cosmetologists (i.e., "beauticians" or "esthetic technicians") babbling on as if they were nuclear physicists, while extolling the wondrous virtues of their products to prospective or actual clients. But the cosmetic industry was not analyzed or evaluated. A cynic might think that to do so would risk losing advertising dollars. Better to go after those who don't advertise, like the government. The government took two big hits from Stossel: for its program on salt and for the EPA's destruction of an entire community because of dioxin contamination.

I did not know before watching "Junk Science" that my government has a bureaucracy devoted to informing the public of the dangers of salt. Dr. Jeffrey Cutler heads the government's salt propaganda campaign. The idea is to persuade us that we should not take in more than 2,400 milligrams of salt a day. Stossel lined up about a dozen experts from places like Harvard and Stanford, including Dr. Michael Alderman of the American Society of Hypertension, to argue that there is no evidence that reducing salt intake is good advice for the general public. There are some individuals who should limit their salt intake, but the evidence is lacking which would suggest that all of us should do so. In fact, one study of heart attack victims found that those with the lowest salt intake suffered a significantly greater number of attacks (about 4 times as many) than the rest of the group.

Our government came in for another attack when Stossel took us to a town in Italy that had had a major dioxin catastrophe twenty years ago: a plant blew up or something like that and there was major contamination of the town and the people. There is evidence that dioxin does all kinds of bad things to rats and mice and other animals. There is not much evidence that it does the same kinds of things to humans. For example, no studies have shown that workers who were in contact with dioxin for years run any greater risks for disease or death than comparable groups not working with dioxin. The Italians buried the debris, including the remains of the plant, and built a park over the buried contaminated debris. They don't seem to be any the worse for their action. On the contrary, when dioxin contamination entered the town of Times Beach, Missouri, the EPA destroyed and buried the whole town and displaced the 2,000 residents, forbidding them to re-enter their homes. The cost has run to over \$100 million for the exercise in environmental destruction by the EPA. The Italian contamination was 10,000 times greater than the one in Missouri, yet William Farland, Ph.D., of the EPA defends the operation and appeals to scientific studies which indicate the dangers of dioxin to humans. There is no doubt he could line up "experts" to back up his claim. [update: May 17, 2000. [Dioxin danger may be greater than originally thought.](#)]

Stossel spent a good part of "Junk Science" dealing with "scientific experts" who testify before the government and in court. Some of these experts and the lawyers who hire them are of dubious integrity. Some of them seem to be on a crusade. All of them are making money. The most egregious case Stossel uncovered was that of Dr. Michael West, a Mississippi dentist who claims to be an expert in "bite marks." His testimony has sent a dozen people to jail, two of whom are on death row. Because of

his incompetence and fraudulent practice, Dr. West has been kicked out of and condemned by the professional organizations he had belonged to. One of his convictions involved exhuming a murder victim's body which had been in the ground for over a year, using some sort of special light as he examined the remains, and claiming to identify bite marks on her shoulder which were "invisible to the naked eye." He also claimed that the bite marks were put there by her husband, who was arrested, convicted and spent two years in jail before being freed after Dr. West's dubious credentials were uncovered. (Tony Kekko, the accused, may be completely innocent, or he may well have killed his wife or hired someone to do it. The point is that the only evidence used to arrest and convict him was the junk science testimony of a quack. I wonder how jurors would respond to such testimony if they realized that the same thing could happen to them!)

The problem of junk science in the courtroom is a significant social problem and needs to be addressed. Stossel has made a major contribution to making the public aware of the problem. One aspect of the problem involves people like Dr. West who claim to be experts in something for which there are no established social criteria. That is, some so-called experts are not really experts because what they claim to be experts in is controversial or dubious. Stossel showed the hire-an-expert advertisements which appeared in a magazine which caters to lawyers. Very few, if any of them, could honestly claim to be scientists. On the other hand, many of the experts called to testify in court have very good scientific credentials. The two experts who testified for the lawyers who sued Dow Corning over breast implants were seemingly reputable scientists. They testified to the causal connection between breast implants and such things as connective tissue disease, Dow paid off millions and filed for bankruptcy. Jenny Jones and Oprah had programs featuring women who'd had breast implants and were suffering from painful disorders. The general public would reasonably conclude from such behavior that there must be strong evidence that breast implants caused these disorders. Yet, the rest of the medical scientific community maintains that given the more than one million women who have had breast implants, it would be expected by chance, if there were no causal connection between the implants and disease, that about 1% or 10,000 women would be ill, because that is the percent of women in the general population who suffer from these problems. That is what the studies have found. If there were a causal connection, the percentage of women who'd had breast implants suffering from diseases such as connective tissue disease should be significantly higher than that for women who do not have breast implants. It isn't.

It is hard not to be moved by anyone's suffering, but lawyers, scientists and jurors have a responsibility to get at the truth. Unfortunately, all too often interest in the whole truth, necessary to achieve justice, is suppressed in favor of finding a perpetrator, guilty or not, who can be blamed for causing such pain and suffering. The only suggestion Stoffel had to remedy the situation is that scientific consensus should carry more weight than the opinion of a few experts, no matter what their credentials. He also clearly implied that some judicial criteria are needed to prevent quack disciplines from being able to provide "scientific experts" in the courtroom.

Journalists and the mass media were criticized for their role in promoting junk science, but not nearly as severely as they should have been. About 15 or 20 years ago there was a major media flurry on "crack babies". Cocaine was said to doom a baby to a lifetime of moronic existence. Experts made strong claims about the

inability of crack babies to ever lead normal lives. Such babies can't respond to a human voice, one expert claimed. The media jumped on the bandwagon and so did the government (it fit the government's war on drugs scorched earth policy). *Rolling Stone* magazine came in for special criticism. The studies on crack babies, it turns out, were done on samples as few as 23, and no controls were made for the effects of alcohol or other potential causal factors. In short, crack babies are not necessarily doomed. Cocaine in a baby's body at birth has not been established as causing brain damage. Where were the media and the government when better studies undermined the claims of the doomsayers? As usual, they were nowhere to be found.

Stossel also reported on Pons and Fleishman whose fame was as ephemeral as the cold fusion they claimed to have harnessed. The lesson here may be that this is what happens when scientists skip peer review and go right to the media and the court of public opinion before begging for dollars before Congress. By the way, it was reported that Toyota has built these guys a research plant in the south of France. Not bad for a couple of bumlbers whose best data was most likely due to either fraud or faulty equipment.

Other scientists were called to task by Stossel, including Linus Pauling and his campaign on behalf of vitamin C. At least a dozen studies have shown that there is no demonstrable cold-preventative effect in vitamin C. Stossel had nothing to say about the fad to take zinc supplements to prevent colds. But he did bring up the fact that spinach is overrated as a source of iron because of a decimal placement error by a scientist years ago.

"Junk Science" was a rare program and I would like to see much more similar programming. ABC is to be commended for the program and for 20/20.

reader comments

20 Dec 1999

I've learned to take Stossel's claims with a huge grain of salt, especially when he's attacking government programs, and this was certainly no exception. I presume that he's talking about the Seveso accident of 1976-- it's the one item that kept turning up when I did a MEDLINE search on "dioxin" and "Italy." If Stossel claimed that the Seveso-area residents are doing just fine, he didn't do his research: I found several papers which noted higher rates of cardiovascular disease and CVD-related deaths (Pesatori 1998), higher rates of mortality for several kinds of digestive canal cancers (Bertazzi 1997), and increases in Hodgkin's lymphoma and thyroid cancer (Pesatori 1993). A 1989 review noted that "An increased mortality, from chronic ischemic heart disease (males) and hypertensive disease (females), which could not be explained in terms of chance, confounding, or bias, was noted in the exposed population. The stressful experience of the population in the aftermath of the disaster was deemed relevant to the interpretation of these findings. Overall, cancer mortality was not increased. Suggestive increases, however, were seen for melanoma, brain cancer, soft tissue sarcomas and certain hematologic neoplasms, whereas mortality from breast cancer and cancer of the liver was

noticeably decreased." (Bertazzi 1989)

No, no one study can really be the final word on a medical controversy, and no paper is immune to criticism. But it sounds as though Stossel's dismissal of the Seveso incident was far from accurate.

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--Brian Siano

December 26, 1996. An editorial in today's *Sacramento Bee* praised the recent decision by U.S. District Court Judge Robert E. Jones which barred scientifically unsubstantiated testimony that silicone breast implants cause disease. Despite the fact that scientists have been unable to find reliable evidence that silicone breast implants cause disease, manufacturers have paid out more than 4 billion dollars in lawsuits. Numerous epidemiological studies by reputable researchers have found that women with breast implants are no more likely than other women to come down with the disorders about which plaintiffs complain. Why, then have companies like Dow Corning paid up? According to the Bee

Many of the plaintiffs in breast implant cases are seriously ill, and sympathetic jurors are often reluctant to send them home empty-handed. Judges have allowed those emotions to have greater play by permitting plaintiffs to put on the stand a handful of paid experts and physicians who give their opinion that implants are responsible for causing disease. Although that testimony is scientifically ungrounded, it has given jurors license to follow their hearts.

The Bee goes on to say that

Jones' order, barring plaintiffs' junk science arguments in 70 Oregon implant cases, begins to change that. Following the U.S. Supreme Court's 1993 instruction that judges serve as gatekeepers to determine that scientific evidence introduced in trials be reliable and relevant, Jones hired four disinterested scientists to advise him, then conducted an intensive hearing on the merits of the evidence offered for trial. Drawing on the experts' advice and the results of the hearing, Jones decided that none of the plaintiffs' scientific claims met the federal standard for scientific evidence, dismissing some of it as "no more than educated guesses dressed up in evening clothes."

Junk science has been allowed in our courtrooms for too long. Jones' decision goes a long way toward eliminating some of the injustice which our courts and juries have allowed to flourish in the past, mainly out of ignorance, pity and a contemptible attitude toward reason and real science.

Nov 24-26, 1966. [NOVA - Odyssey of Life](#) tells the story of evolution in the stunning color photography of Lennart Nilsson. Excellent.

November 22, 1996. The *Sacramento Bee* reports that Thomas Molina, a 12-year old boy is diagnosed with Hodgkin's disease. His mother, Katherine Quartz, a Paiute Indian, wants him to be treated by a holistic homeopath recommended by a tribal medicine man. The boy had started chemotherapy but a tribal judge, Ron Johnny, ordered the chemo stopped until a "traditional medicine man" examined the boy. A pediatric oncologist says that the chances of survival are 90 percent or higher with chemotherapy and radiation. The traditional tribal healers say that the chemotherapy will interfere with the homeopathic remedies. The mother is arrested on a felony warrant of child endangerment. The boy is being treated by a homeopathic doctor, somewhere unknown to the court which wants to force the boy to have chemotherapy. Who's right?

Stay tuned. We'll follow the progress of this case of parental vs. state rights and traditional medicine vs. alternative therapies.

January 15, 1997. Charges against the mother have been dropped. She apparently put the boy back in chemotherapy. The boy's oncologist, Dr. Arun Ragasawami, reports that Molina is responding well to chemotherapy and that "tumors are getting smaller." However, an American Indian appellate court, the Inter-Tribal Court of Appeals for Nevada, has ordered the UC Davis Medical Center to stop the chemotherapy while Molina undergoes a 120-day "holistic Indian cure" for cancer. The article by Stephen Magagnini in the *Sacramento Bee*, which gives an account of the Indian court's decision, does not mention what authority the Indian court has or whether the Sacramento District Attorney is likely to file charges against the mother again should you abide by the Indian court's ruling.

February 26, 1997. Today Katherine Quartz spoke at Sacramento City College and I was able to attend and get some more information on the case. She was part of a panel which included her lawyer, a Native American who is also a psychologist and a woman who heads an Indian Services Agency. Her son, Thomas, was also in

attendance.

Apparently, an Indian who lives on a reservation is not a citizen of the United States and is under the jurisdiction of Indian tribal laws and courts. Had Ms. Quartz never left her reservation, she would have been free to seek any kind of treatment she wished for her son. But she had gone to Portland, Oregon, to go to college. This fact was used by authorities in Oregon and California to impose their laws on her. She did seek out a pediatrician for her son when he first got ill. She did not seek out an Indian healer at that time, she said, because the only healer in her area was gravely ill himself. The diagnosis of Hodgkins was not immediate, but was not made until four months after the first visit with a physician. When chemotherapy was offered as the only reasonable therapy for her son, she says she told the doctors she wanted to do some research first. She did and concluded that chemotherapy was not a reasonable modality of treatment. She then took her son to a practitioner of traditional Chinese medicine, who treated her son with acupuncture and herbs. (She asserted a belief that "herbs can go in and break up tumors," though she gave no source for this notion.) She then took her son to a naturopath who treated him with herbs.

She says that her troubles began when she tried to get a CAT scan of her son, which she says she wanted in case any questions came up later about the efficacy of the treatments she'd chosen for her son. X-rays had shown significant reduction in tumor size and growth, she says. But a CAT scan would provide better evidence, she believed. Her treatment by the medical doctors in Oregon she went to for the CAT scan was less than respectful of Indian ways. She was told that chemotherapy was the only correct medical treatment for her son and that she was endangering his life by seeking alternative treatments. One pediatrician even wrote to authorities investigating the case that Ms. Quartz's thought processes were impaired. His evidence seemed to be limited to the fact that she disagreed with him on the proper medical treatment for her son.

Given the unique status of Indians--they are basically members of a foreign nation, but have unique status granted in the U.S. Constitution--the Tribal appellate court's ruling is binding and California cannot order the boy back into chemotherapy. According to Ms. Quartz, her son received five chemotherapy treatments against her will. He looked fine today, but she said that after the treatments he look awful. His hair fell out and he developed mouth sores and other signs of physical debilitation (which are common side effects of chemotherapy). She says that her research discovered that her son might be made sterile by chemo and that the statistics were not exactly as promising as they might seem. According to her lawyer, the survival rate was 90% if the patients were followed for ten years. But if they were followed for fifteen years, the survival rate was less than 10%. Both claim that there is evidence that while chemo might stop a cancer, it so debilitates the immune system that the effects after ten years are devastating.

In her quest to seek the best course of treatment for her son, Ms. Quartz was charged with child endangerment and had her son taken away from her. She was charged with kidnapping for taking him from a hospital. She claims a police officer held a gun to her head and told her she was killing her son by not getting him into chemotherapy. A medical doctor abused his authority to try to get her declared mentally incompetent because she dared to favor alternative medicine to traditional medical treatment. Her behavior as a mother was exemplary and her seeking out an Indian healer is

consistent with her life on a reservation for the past sixteen years. I don't know if I would have made the same decision as she did about the chemotherapy, but I know that I would have done research, too. And if I came to the conclusion that the therapy recommended by my physician was not the best for my child, I would not put my child into the therapy. Furthermore, I would not expect to be labeled mentally incompetent or a child abuser simply because I came to a different conclusion than my physician.

As readers of my pages know, I hold no sympathy for alternative medical treatments. But I have even less stomach for authoritarian bullies whether they carry guns or a stethoscope.

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Last updated 12/30/01



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reader comments:

reverse speech

13 Jan 1998

I was going to offer a refutation of Oates' theory of reverse speech until I read the study by Mark Newbrook and Jane Curtain, which appears under your "further reading". Their study and its results are devastating, and I have a hard time seeing how anyone could read it and continue to believe in this incredible theory.

I have an undergraduate degree in theoretical linguistics, and I wanted to offer my analysis of one of the examples that Oates uses.

Allegedly, a toddler who asked "A diaper?" was really saying "Help me out". This makes a very good case study in the phenomenon of reverse speech:

The following sounds appear in "A diaper": uh dye uh pur

Here are those sounds reversed: rup uh I'd uh

Compare these to the sounds in "help me out": help mee owt

Not all that similar, are they?

But add to this the question intonation of "A diaper?", which starts low and ends high. In "help me out", the toddler starts high and ends low. What an incredible coincidence! That high to low voice intonation conveniently masks the marked differences in the sounds. For example, there is no "m" in "a diaper", nor is there a "t", nor is there an "h", nor is there an "l". If I'm missing something here, help me out!

The crucial point in Newbrook and Curtain's report is the role of the power of suggestion. Without being told in advance what you're supposed to hear, it is difficult, even impossible, to hear the "subconscious message". That speaks volumes.

Bret Palm

reply: I agree that the only reason Oates is able to convince others that there is something to his theory is by telling them what some garbled message says before they hear it. The same is true of the so-called satanic messages in rock music. Until someone points it out, nobody hears anything. Suddenly, everybody hears it. Something similar happened

with Disney and homosexual porn. Somebody played an animated film at slow speed and claimed to see erections under the Sorcerer's robes, etc. So-called Christian groups organized and started calling the trash talk shows. Pretty soon the talk show hosts were looking at all the Disney animations and finding evidence of obscene cartoons everywhere. Callers were more than happy to look for and discover even more examples of homosexual promiscuity placed in cartoons by a cadre of evil-minded graphic artists hellbent on corrupting the morals of the nation's youth.

Yes, it's the power of suggestion, but it is more as well. In the case of Disney, there was also homophobia which was a driving force behind the pareidolia. In the case of reverse speech, it's driven in part by the same wishful thinking that drives people to believe in truth serums and lie detectors because of a profound distrust in our judicial system to catch, convict and punish people like O.J. Simpson or the Ramseys. It is also driven by our fascination with anything bizarre.

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Document 2 - The Plagiarism of Catalina Rivas

Comparison of two typical pages from *Renovacion Evangelica (Evangelical Revival)* allegedly dictated to the alleged stigmatic Catalina Rivas by Jesus Himself in 1996 to *Formacion de Predicadores (Training Preachers)* by José Prado Flores and Salvador Gómez of Guadalajara, Mexico, taken from the 1992 edition.

Nearly every page of *Renovacion Evangelica* can be found to correspond to nearly identical pages of *Formacion de Predicadores*.

from *Renovacion Evangelica*, "dictada a la sierva de Dios," [Catalina Rivas] Cochabamba - Bolivia, 1996, pages 34-35

salvación de Dios. Tienen que encarnarse tanto para denunciar la ausencia de Dios, como para anunciar también su presencia divina.... Tomen ejemplo de Pablo que supo descubrir Mi presencia en un lugar atestado de dioses paganos: *"Pablo... estaba interiormente indignado al ver la ciudad llena de ídolos. Discutía en la sinagoga con los judíos y con los que adoraban a Dios y diariamente en el ágora con los que por allí se encontraban. Le tomaron y le llevaron al Areópago. Pablo, de pie en medio del Areópago, dijo: Atenienses, veo que ustedes son, por todos los conceptos, los más respetuosos de la divinidad...."*

(Hech 17, 16-21.)

Fue tan hábil que, interiormente indignado, puesto que en cada esquina había ídolos, supo aprovecharse de la ocasión para anunciar Mi Evangelio. El estaba preparado, sabía de memoria versos de poetas griegos. Hablaba perfectamente la lengua de los atenienses, y de cualquier tema que le hablaran, sabía responder. Estaba al día en cuanto a los conocimientos de su época. Luego añadió: *"Cuando pasé por la ciudad me encontré que ustedes tienen un pedestal vacío, adorando a una divinidad desconocida. Pues bien, de este Dios desconocido es de quien yo quiero hablarles el día de hoy"*.

(Hech 17,23.)

- Las canciones de moda son un buen medio para predicar en el lenguaje de todos los días. Te daré algunos ejemplos que puedes usar para anunciar o para denunciar.

- La amante canta: Que me perdone tu señora (el

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descaro ante el pecado).

- Qué bonita es la venganza, cuando Dios nos la concede (Atribuírme a Mí lo que hacen).

- Esta flor ya no retoña, tiene muerto el corazón (la desesperanza).

- Con dinero y sin dinero, hago siempre lo que quiero y mi palabra es la Ley (La arrogancia).

- Si amarte es pecado, quiero ser pecador (No importa que sea pecado).

■ Denunciar los criterios del mundo es una parte de la evangelización. Renunciar a estas oportunidades es bajarse del tren donde viaja el mundo.

■ - Es indispensable también, para predicar, el estudio de biografías.

■ Por Ej: Tomás A. Edison dedicó 3 años a investigar la fibra incandescente que pudiera iluminar en un foco. Experimentando con todo tipo de materiales, efectuó más de dos mil pruebas, aunque sus amigos le aconsejaban desistir. Gracias a su perseverancia, logró su objetivo.

from *Formacion de Predicadores (Training Preachers)* by José Prado Flores and Salvador Gómez of Guadalajara, Mexico, taken from the 1992 edition. Compare everything from the 4th sentence on to the above.

Jesucristo no nos quiso salvar por correspondencia. Por ello, la Palabra se hizo carne y habitó entre nosotros. Si el predicador no está encarnado en la vida de los hombres, nunca podrá estar cerca de ellos para manifestarles la salvación de Dios. Tenemos que encamarnos tanto para denunciar la ausencia de Dios, como para anunciar también su presencia divina.

Pablo supo descubrir la presencia del Dios verdadero en un lugar atestado de dioses paganos:

*Pablo... estaba interiormente indignado
al ver la ciudad llena de ídolos.
Discutía en la sinagoga con los judíos,
y con los que adoraban a Dios;
y diariamente en el ágora
con los que por allí se encontraba.
Le tomaron y le llevaron al Areópago.
Pablo, de pie en medio del Areópago,
dijo: "Atenienses, veo que ustedes son, por todos los
conceptos, los más respetuosos de la divinidad...":
Hech 17, 16-21.*

¡Qué hábil Pablo, Interiormente estaba indignado, puesto que en cada esquina había ídolos, pero supo aprovecharse de la ocasión para anunciar el Evangelio.

Pablo estaba capacitado para discutir con los epicúreos y los estoicos. Hasta sabía de memoria versos de poetas griegos. Hablaba perfectamente la lengua de los atenienses, y de cualquier tema que le hablaran sabía responder. Era un hombre que estaba al día en cuanto a los conocimientos de su época.

Luego añadió:

*"Cuando pasé por la ciudad me encontré
que ustedes tiene un pedestal vacío.*

*que ustedes tiene un pedestal vacío,
adorando a una divinidad desconocida.*

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*Pues bien, de este Dios desconocido
es de quien yo quiero hablarles el día de hoy":
Hech 17, 23.*

c.- La música

Las canciones de moda son un trampolín maravilloso para predicar en el lenguaje de todos los días.

Daremos ejemplos de algunas canciones, que obviamente tienen algo que el predicador puede usar para anunciar o denunciar:

- La amante canta: Que me perdone tu señora (El descaro ante el pecado).
- Qué bonita es la venganza, cuando Dios nos la concede (Atribuirle a Dios lo que hacemos).
- Esta flor ya no retoña, tiene muerto el corazón (La desesperanza).
- Con dinero y sin dinero, hago siempre lo que quiero y mi palabra es la ley (La arrogancia).
- Si amarte es pecado, quiero ser pecador (No importa que sea pecado).

Sería lamentable desaprovechar esos ejemplos que todo mundo usa en la vida diaria. Denunciar los criterios del mundo es una parte de la evangelización. Renunciar a estas oportunidades es bajarse del tren donde viaja el mundo.

d.- Biografías

Es indispensable también para un predicador, el estudio de biografías.

- *Tomás Alva Edison* durante 3 años se dedicó a investigar la fibra incandescente que pudiera iluminar en un foco. Experimentando con todo tipo de material, efectuó más de

Experimentando con todo tipo de material, efectuó más de dos mil pruebas, aunque sus amigos le aconsejaban desistir. Gracias a su perseverancia, logró su objetivo.

Document 1 - The Plagiarism of Catalina Rivas

From the book FATHER OF ALL MANKIND by Dr. Ricardo Castañón Gómez (The International Group for Peace, La Paz, Bolivia 1999) taken from Renovacion Evangelica 1996, p. 9).

From the book *Formacion de Predicadores* by Salvador Gómez and José Prado Flores (Kerygma, 1992, p.11)

Jesus says to Catalina:
“Observe My daughter every morning, even when it is still dark, the farmer walks down the path that takes him to his land. His path is well-worn from so much coming and going on the same place. Even his animals come and go alone to the field. His schedule is routine...The case of the fisherman is very different. In the

sea there are no roads or paths, new ways will always be taken. Waves are never the same. Every day the wind blows in a different way and a new way has to be invented. Every morning the fisherman stands in front of the sea and wonders: "God, and now, where should I go? Where are the fish today? Therefore the fisherman repeats daily with psalmist: "Show me thy ways, O Lord. Teach me thy paths" (Psalms 25, 4)

D.- Pescadores sí, agricultores no

Si Jesús comparó ordinariamente el Reino de los Cielos con elementos de la agricultura, lo más lógico era que hubiera llamado a hombres del campo para este ministerio. Sin embargo, llamó a pescadores y a éstos les dijo que serían pescadores de hombres. ¿Por qué no les dijo que serían labradores?

La razón puede ser que cada uno realiza su trabajo de manera muy distinta, y Jesús necesita personas con el carácter de pescador y no con la forma de ser de un labrador.

El agricultor, todas las mañanas, aún oscuro, se encamina por el sendero que lo lleva a su terreno. Incluso, su vereda está trillada por tanto ir y venir por el mismo lugar. Hasta sus animales van y regresan solos al campo. Su itinerario es rutinario. Recorre siempre el mismo camino de sus antepasados. Sus hijos y nietos usarán la misma senda.

El caso del pescador es muy distinto. En el mar no hay caminos, ni veredas. Siempre se va por nuevos derroteros. Nunca las olas son las mismas. Cada día el viento sopla distinto y hay que inventar un camino nuevo.

Todas las mañanas el pescador se para frente al mar y pregunta: "Dios, y ahora, ¿por dónde?, ¿dónde están los peces hoy?". El pescador repite cada día con el salmista:

"Muéstrame, Señor, tus caminos.

Haz que tu senda pueda encontrar": Sal. 25, 4.



reader comments:

rolfing

03 May 2002

Please update your section on Rolfing® to correct the following errors. You will notice that these errors could have been avoided had you obtained your information about Rolfing directly from the Rolf Institute, the organization founded by Dr. Rolf which is the sole certifying body for Rolfers worldwide, and the sole owner of the service mark "Rolfing®". The definition of Rolfing® is legally owned by the Rolf Institute. To base your article about Rolfing® on a handful of illegitimate sources -- or worse yet, on the diluted hearsay and popular misconception that sadly passes for authoritative information on the Internet these days -- is irresponsible, misleading and weakens the noble cause of skepticism. The address of the Rolf Institute web site is www.Rolf.org, not <http://guide.boulder.net/Rolf/as> you indicate in your article.

And now, the errors:

"Rolfing is a kind of deep massage developed by Ida P. Rolf (1896-1979), a biochemist and physical therapist."

-- Rolfing® is not "a kind of deep massage". The methods and goals of massage are inconsistent with those of Rolfing®. The only thing massage and Rolfing® have in common is that both involve a practitioner touching the body. If this condition were sufficient to define massage, then dentists and hairdressers could be considered massage therapists (and boxers could be said to perform "a kind of deep massage.") See www.rolf.org/about/index.html and also <http://www.rolf.org/about/facets.html> for an authoritative description of Rolfing®.

reply: According to the [FAQ](#) on the official Rolf Institute site

When most people think of Rolfing, one of the first words that come to their mind is pain. Often, this perception is based on anecdotal accounts of sessions performed during Rolfing's infancy, when it tended to be often a less subtle and more intense discipline, frequently linked to popular emotionally intense types of therapies in the late 1960's and early 70's. Part of this reputation can be attributed to an often-quoted complaint of Dr. Rolf during her training classes that her students failed to work deep enough. Apparently, many

assumed that what she meant was that they needed to work harder and deeper. However, we now realize that deep work is not necessarily synonymous with physical intensity.

I note in the entry that this early approach has been replaced by an emphasis on *gentler* methods. On their homepage, the Rolf Institute describes Rolfing as "a holistic system of soft tissue manipulation and movement education." While I don't go into detail, I do indicate that Rolfing is more than massage when I note that the goal is "integration" and "alignment" and quote the local Rolfer's focus on Rolfing's "gentle deep muscle balancing process that structurally aligns your body."

-- Ida Rolf was not a physical therapist. See <http://www.rolf.org/about/history.html> for an accurate history of Dr. Ida P. Rolf.

reply: You're right. Physical therapists receive extensive training in physiology and anatomy and science-based therapy. They don't use intuition about gravity, nor make magical connections between physical alignment and emotional stability. Hence, I've removed the adjective 'physical' in describing her type of therapy.

"Rolfing is the name given to Dr. Rolf's method of massage ..."

-- Rolfing® is the name given to Dr. Rolf's principles and methods of structural integration of the human body.

"Rolfing ... transcends chiropractic in that it is based on the notion that emotional as well as physical health depends upon being properly aligned."

-- this statement betrays an unfamiliarity with both Rolfing® and chiropractic. While there is some area of overlap between these two disciplines in so far as their subjective effects can be appraised by the untutored masses, their aims and methods are different, rendering any comparison about as profitable as comparing apples to oranges. Furthermore, any statement asserting that "apples transcend oranges" is so weakly conceived as to yield no meaningful information.

reply: What has Rolfing done to your sense of humor?

-- Rolfing® is not based on a notion that emotional as well as physical health "depends" upon being properly aligned. This statement commits the logistic fallacy of asserting that proper alignment is prerequisite to emotional and physical health. This is nowhere stated in the Rolfing® literature, nor is this idea taught in the Rolfing® training curriculum. What has borne out conclusively in published research is that both emotional and physical health can improve as a consequence of Rolfing® structural integration. (See cited

references below).

reply: There certainly is an effort on the Rolf Institute [FAQ](#) page to dissociate Rolfing from emotional release. However, Ida Rolf seems to have had other ideas, according to [The Toronto Rolf Structural Integration Center](#):

She determined that the human structure is a "plastic medium", and that by applying pressure, energy and intention, the muscular structure can be altered and freed from long-held aberration, the result of physical and/or emotional traumas. By working to free the myofascial network which encases and relates each muscle and each group of muscles, the body returns to its natural organization, and accordingly functions in a more efficient, graceful and comfortable way. She observed that when human structure becomes more vertical, more balanced, more upright, a whole series of other significant changes occur in the person. Further, she noticed that a body which becomes more structurally upright, *provides greater emotional, psychological and spiritual uprightness.* [emphasis added]

"To be healthy, according to rolfers, you must align your head, ankles, hips, thorax, pelvis, knees, shoulders, ears, etc., in just the right way or else the evils of gravity will be felt."

-- similar to the last error, this statement claims that Rolfers believe that alignment is a necessary ("must") prerequisite to be "healthy." Furthermore, the word "healthy" here is a weak and meaningless generalization. The published research proves only that certain specific factors contributing to health can, in fact, improve as a result of Rolfing®.

reply: ?

"... according to rolfers ... the evils of gravity will be felt."

-- perhaps you can explain exactly how the concept of "evil" can be attributed to gravity. Your use of this term is flippant poetic license - no doubt conceived with a self-satisfied smirk - designed to characterize Rolfers in an absurd light. Such thinly veiled Ad hominem arguments do not serve the cause of skepticism. You would do better to remain objective and refrain from dramatic bias.

reply: I think you need to have your humor fascia adjusted.

"Has this claim of the muscular/emotional connection been demonstrated by

any scientific studies? No..."

-- it is a popular misconception that the goal of Rolfing® is to induce emotional well-being. This probably stems from the fact that a great many people who have experienced Rolfing® report improvement in their emotional state. The goal of Rolfing® is simply to take advantage of the greater mechanical efficiency afforded a structure that is balanced in the field of gravity. This is simple engineering physics. However, such balance occurring in a living structure has been shown to have beneficial consequences for many systems of the body (See cited references below). While there is no arguing the perceived value or validity of one's subjective emotional experience, it must be noted that such effects constitute a class of unpredictable epiphenomena which MAY manifest as a byproduct of achieving a more stable, resilient and efficient structure.

reply: You may be right that Rolfing is now simply about "engineering physics" and aims only at "mechanical efficiency," but until the Rolf Institute stops claiming to be "[holistic](#)" I will assume that its practitioners think Rolfing is not just about the body, but about the mind and soul as well.

-- even a cursory scan of the scientific literature yields an enormous body of conclusive research demonstrating the role of the neuromuscular system in mediating the functional connection between the activity of the brain and its emotional expression in the rest of the body.

reply: Well, either you are proud of the fact that Rolfing enhances the emotional well-being of people or you deny that emotional well-being is even a goal (didn't you say it was an 'epiphenomenon'?). I would be the last person to deny that a well-tuned body is very important to a healthy emotional life. I would not even deny that Rolfing is effective in teaching people to use their muscles in a more efficient way. What I object to are the metaphysical overlays and the seeming contradictions such as these from the Rolfing Institute's [FAQ](#).

What the Rolfing method does is create a higher level of integration in the body, balancing and educating the body and the psyche. As the body approaches balance, it is more comfortable in the gravitational field. As the body becomes more comfortable, physical and emotional stress diminish.

What most potential clients fail to understand is that Rolfing is not a method which focuses on stress reduction....All clients experience benefits from Rolfing, an important one for most is that they are less stressed and more at ease in their bodies.

RESEARCH ON ROLFING

Stress, Stimulus Intensity Control, and the Structural Integration Technique, Silverman, Rappaport & Hopkins, (abstract : Confinia Psychiatrica, Karger Publisher, Switzerland, 1973)

Effects of Structural Integration On Strait-Trait Anxiety, Robert Wagner and Valerie Hunt, UCLA, 1976, (abstract : Journal of Clinical Psychology, Vol. 35, No.2, USA, April 1979)

A Study of Structural Integration from Neuromuscular, Energy Field & Emotional Approaches, (abstract: Dr. Valerie Hunt and Wayne Massey, UCLA Dept. of Kinesiology, 1977)

Electromyographic Evaluation of Structural Integration Techniques, Dr. Valerie Hunt and Wayne Massey, UCLA, (abstract : Psychoenergetic Systems, Gordon & Breach Science Pub., U.K., 1977)

Functional Evaluation of Rolfing in Cerebral Palsy, Perry, Jones & Thomas, (abstract : Developmental Med. Child. Neurol. 1981, 23)

Children With Cerebral Palsy, Cindy Potter, 1986

Effects Of Soft Tissue Mobilization on Parasympathetic Tone in Two Age Groups, J. Cottingham, Frances Nelson Health Center, Illinois, 1987, (abstract : The Journal of American Physical Therapy Assn., Vol. 68, 352-356, 1988)

Shifts in Pelvic Inclination Angle and Parasympathetic Tone Produced by Rolfing Soft Tissue Manipulation, J. Cottingham, Frances Nelson Health Center, Illinois, (abstract : The Journal of American Physical Therapy Assn., Vol. 68, 1364-1370, 1988)

Biomechanical Structuring For Figure Skating, preliminary pilot study report for the U.S. Figure Skating Association, Helen James, Katharine Robertson, and Neal Powers, Olympic Training Center Camp, CO, 1988

Effects of Soft Tissue Mobilization On Pelvic Inclination Angle, Lumbar lordosis, and Parasympathetic Tone: Implications for Treatment of Disabilities Associated with Lumbar Degenerative Joint Disease, Cottingham JT. Public testimony presentation to the National Center of Medical Rehabilitation Research of the National Institute of Health, Bethesda, MD; March 19,1992. Rolf Lines 20 (2) : 42-45, 1992

A Three-Paradigm Treatment Model Using Soft Tissue Mobilization and Guided Movement-Awareness Techniques For Patients With Chronic Back Pain: A Case Study, J. Cottingham and J. Maitland, The Journal of

Orthopedic & Sports Physical Therapy, Vol.26, No.3, Sept.1997

Integrating Manual and Movement Therapy With Philosophical Counseling For Treatment of A Patient With Amyotrophic Lateral Sclerosis: A Case Study That Explores The Principles Of Holistic Intervention J. Cottingham, M.S., P.T. and J. Maitland, Ph.D., Alternative Therapies In Health and Medicine, Winter/Spring 2000

Sincerely,

Scott Cantrell, Certified Rolfer

10 May 1998

I understand where you are coming from with "The Skeptic's Dictionary." There are undoubtedly many quacks out there, although I suspect many you would define as such are quite sincere - which of course doesn't legitimize their methods.

I do take some umbrage with your snide - to me - comments re Rolfing. From a biomechanical standpoint, I would think it quite obvious that structure has an impact on function. I speak from personal experience, as I was born with a clubfoot. I have experiential evidence (which of course cannot be scientific as there is no possibility of replicability or control) of the changes Rolfing has wrought on my body. I suspect you would concur if you saw the photographs. At the same time, my eyesight has improved from diopters of -10 in both eyes to -4, with continuing improvement. (This has occurred contemporaneously with use of The Bates Method, which I am somewhat surprised is not in your work as it has generated much scorn from the medical community over the last 70+ years.) These are real structural changes which have taken place.

reply: I don't know of too many people, medical doctors or not, who would disagree with the notion that structure has an impact on function. The [Bates Method](#) has generated scorn in the medical and optometric communities, but I, too, am fallible and incomplete.

Again, my greater ease and efficiency of movement, which also have emotional correlates, are not the type of thing scientists look for in validating a "system" of healing. To be quite frank, I really don't care a whit! The important thing from my standpoint is that I know Rolfing has been of benefit to me. I realize that you undoubtedly haven't had this personal experience, and can therefore easily be skeptical, and perhaps that's appropriate.

However, I think you should perhaps be a little more selective in what you include in your work. Does lack of scientific evidence alone merit inclusion, or should, perhaps, only affirmative evidence of lack of scientific merit be the

benchmark for inclusion? Admittedly, as a practical matter, no mainstream scientist would be caught dead studying alternative therapies; therefore, affirmative evidence is unlikely to appear. Remember there are orthodoxies and heresies and fashions in the scientific world, just as in any form of human endeavor. To ignore this is to most assuredly engage in self-deception. The human ego is a frail thing.

John Hicks

reply: Customer satisfaction is obviously a good thing, but it cannot substitute for scientific testing. For every happy customer of a quack remedy, there are many who are not helped and some who are harmed because they did not seek a traditional therapy known to work for their ailment. Contrary to your claim, there are often good reasons to examine alternative therapies and mainstream scientists are usually the ones to do the examination, e.g., magnetic therapy and therapeutic touch.

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Robert Todd Carroll

Last updated 11/20/02

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reader comments:

Rorschach ink blot test

20 Jan 2001

I strongly disagree that the interpretation of the Rorschach (if using Exner) is highly intuitive on the Psychologist's part. Exner has done an amazing job of standardizing the scoring of responses. Secondly, I completely agree that, despite this scoring system, the test is completely useless. Most of psychological testing is. It is the test report (conclusions from the entire test battery) that is so highly subjective that without any exaggeration, in my opinion, is similar to astrology. I do not state this to merely make a point. That is what it is like. Exner's scoring system has impressed scientific types into believing that because the scoring is so tedious and standardized, that it must therefore be valid and useful. Neither is true. Study after study has demonstrated that personality tests are invalid and perhaps more importantly, not useful tools.

Scott Shimabukuro, Ph.D.
Clinical Psychologist

8 Nov 2000

As a tremendous fan of skepticism in general and your site in specific, I feel that I must take issue with the explanation of the Rorschach Inkblot Protocol contained therein. I practiced in the field of psychology for eleven years and spent many hours administering and interpreting a variety of psychological measures. In order to better understand the inner mental workings and defense postures of clients, I developed a fondness for the Rorschach. My interest in and experience with the Rorschach led me to develop my own scoring system, which I taught to many other clinicians. Part of this instruction dealt with the proper understanding and use of the instrument.

First, the Rorschach is not, and has never been properly used as, even an inferential measure of "personality". It is a structured, non-verbal interview methodology that demonstrates the mental and emotional workings of an individual. It is almost impossible to "fake", since the act of attempting to do so tends to accentuate defenses rather than hide them. The only methods by which one can deny the test access to one's defense structure is to refuse to take it, or to respond with irrelevant or similar responses to all items. Even these responses are telling, however.

Much of the information that is gathered by a competent examiner using a

Rorschach protocol could be gathered similarly with interview techniques. I favored the Rorschach because it always presented the person against the same backdrop. It was easier for me to see them clearly this way. Interviews are loaded with bias, transference, diversion, etc. The Rorschach is always the same ten cards, presented (at least the first time through) with only the simplest of instruction: "I'm going to give you a series of ten cards to look at, one at a time. All you have to do is to look at each card and tell me what you see." The first card is presented to the client and they are instructed, "Tell me what you see." The first time through, their responses are recorded with no, or almost no additional prompting or explanation. They must organize the experience. After the initial run-through the cards are re-presented (again, one at a time) and "inquiry" is performed. The examiner is somewhat free to ask about how the client came to see certain things and why. If expected responses are not demonstrated, the subject can be prodded to see if these can be elicited.

I always enjoyed using this instrument, because there is an art to it, rather than the cold mechanism of paper-and-pencil tests. I gave up the field because it became obvious to me that, while developing a good understanding of a person was possible, helping them effectively and permanently improve themselves was not. I now design rubber gaskets for sewer pipes and find it a challenge equally as intellectually interesting as psychotherapy.

Michael R. Miller

reply: I think you made a wise career change.

18 Jun 1999

*I am aware of 2 errors of fact in your **Skeptic's Dictionary**.*

The first concerns your skeptical criticism of the Rorschach Inkblot. You criticize the putative scientific status of the Rorschach because the scientific evidence for its validity is based as it must be on correlation alone. You compare this to the efficacy of interpreting dreams. In point of fact the Rorschach has a more immediate source of validity: clinical usefulness. It is in fact a powerful tool in properly trained hands, and your skeptical criticisms amount to nothing more than "character assassination", that is, you have neither proven it to be useless or invalid, nor have you proved to be invalid the claims of those who find it useful and valid. Therefore, I consider your propositions regarding the inkblot to be errors of fact, in that they are speculation posing as proof.

reply: I don't criticize the ink blot test because the evidence for its validity rests on correlation alone. I criticize it because it is too subjective and its application and validation rests completely with the therapist's "insight" and intuition. As such, it is no different from making a diagnosis based on

conversations with someone.

The attempt to standardize a projective test is akin to what Freud did in his *Interpretation of Dreams*. There is no objective set of rules for what either the ink blots or dreams mean.

I never claimed the ink blot test to be useless. A good therapist ought to be able to use *any* interaction with the patient to some purposeful and useful end.

I think, however, that you, like many therapists, don't know the difference between a statement of fact and an opinion.

The second error of fact is more egregious. You claim that the images seen on Kirlian photographs are due to "moisture" emanating from the object. Again you have not studied your subject in enough depth to offer better than speculative criticism. The moisture effect is your theory, nothing more, and it is disproved by two observations: first, that aura's have been captured from objects that were bone dry, such as stone or metal, and second, that if the photographic emulsion is separated from the object by a thin layer of glass, the aura can still be detected even when it is impossible for moisture to have penetrated the glass. Finally, you are guilty of bad faith, because you essentially imply that persons reporting such things as phantom half leaves are either so foolish as to conduct the experiment sloppily so as to confound the results with the effects on which you speculate, or else that they are liars who misrepresent their technique. From what I have seen the people conducting both Kirlian photography research and those doing research on the Rorschach are working harder and more intelligently, and certainly with more good faith, than what you have done.

reply: Apparently, you have a difficult time reading. I claim that the "auras" in Kirlian photographs can be due to several things: pressure, electrical grounding, humidity, temperature, changes in moisture, barometric pressure, and voltage.

Moisture left behind by a section of a leaf that has been sliced accounts for the appearance of "phantom" sections of the leaf in Kirlian photographs. Moisture is not what is photographed. Electrical discharge is what is photographed.

I haven't heard anyone being accused of "bad faith" since my college days when existentialism was the rage. I don't doubt that your researchers work hard, nor do I challenge their intelligence. Whether they have good faith or bad faith, I can't say. However, I think your critical comments demonstrate the uselessness of such expressions.

17 Jul 1996

I hope you will take the time to talk to a psychologist or psychiatrist before debunking a sometimes useful tool. The Rorschach ink blot can be over-interpreted to be sure, yet, there are certain characteristics of response which very accurately predict mental illness and conflict. If I were to explain these, it would render the test useless to anyone who read this. The reliability of the test is, in part, due to the fact that the patient does not know what kind of information in his responses, is pertinent.

I have seen a profile of a patient from a Rorschach. This was a patient of whom I had privileged and intimate knowledge, (of which the testing psychologist had none) and found the test VERY accurately described many aspects of the patient's personality and relationships. Maybe you should read about this, rather than theorize from the hip.

-- S Durrenberger MD

reply: theorizing from the hip is a problem of mine, but being a physician you must understand how hard it is to break ingrained habits. Anyway, how long can this test remain useful when the info you won't reveal has been published and is available to anyone who cares to dig for it. Don't forget that the one who administered the Rorschach also met with, conversed with and interacted with the patient. The evaluation of the patient's personality wasn't based solely on the interpretation of the patient's interpretation of ink blots.

1 Nov 96

You might be surprised at the usefulness of the Rorschach. As you mentioned, it is not really a projective test. One looks at the structure of the person's responses. The people who are researching this test are not soft scientists--the data is pretty meticulous, in order to avoid lapsing into the kind of pseudo-science that characterized interpretation in the past. There's much more subtlety in the interpretation than is conveyed by your passage. Anyway, I'm a psychologist, and find that many people are skeptical of it. But it is one of the stranger discoveries of my life that such an odd technique really does seem to have merit. The same types of people really do produce the same types of responses to the blots. I never would have believed it when I first began reading about it years ago. Of course, to make sense of the responses, one has to first have a coherent understanding of personality. The cards alone don't provide that. Its impossible to interpret the cards, or any test, well, if there is no cohesive understanding of personality with which to inform the results.

reply: You are correct. I would be surprised at the usefulness of the Rorschach.

9 Nov 1997

Since I happen to be a "believer" in the inkblot test (a belief which is founded on my own research on neuropsychological patients, and on extensive, critical literature studies) I object to the publishing of the data (i.e., "the contours of the blots") about the Rorschach cards. As you do not fail to emphasize, everybody must always consider the possibility that he is wrong even in his favourite beliefs. And if you are wrong about the validity of the Rorschach test, you may do serious harm to a valuable clinical praxis by this publishing.

In the matter of who is right and who is wrong about validity, excuse me if I put the matter somewhat rudely, but if you are so ignorant that you believe that Rorschach did not use his cards for personality analysis (quote from your page!), you should be very careful in your judgements about the test until you have checked out some more facts.

**Helge Malmgren PhD, MD, associate professor
Dept. of Philosophy, Göteborg University**

reply: I haven't published any "data" about the Rorschach cards or the shapes of the blots. I hope you are not suggesting that because something may be useful in clinical practice, it would be wrong to criticize it.

30 Nov 1997

I loved your page on the Rorschach. At the moment (and much to my regret), this course is required for our Ph.D. degree in clinical psychology. I have taught courses on personality, and have several publications on the biological underpinnings of personality traits. Your readers' comments show that these professionals have a distinct lack of appreciation for the "Barnum Effect," as related to assessment of individual differences. Rorschach never conceptualized his little test as a "projective" assessment tool (thus, saving himself from purgatory). He would turn over in his grave if he knew how his test was used over the years. Sure, there are some data to support the validity of the inferences drawn from scores on the test using the Exner system. However, the Rorschach, in general, provides little bang for your buck (e.g., questionable incremental validity; time required for administration, scoring, and interpretation is excessive). One argument I hear for continued training of psychologists in the use of this instrument is that our friends in psychiatry love it. That is, us poor psychologists can make a dollar on consults from our M.D. associates. Let them stick to prescribing meds!

**Mitchell E. Berman, Ph.D.
Assistant Professor
Department of Psychology
The University of Southern Mississippi**

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reader comments:

Roswell

01 Aug 1996

I've just begun reading your dictionary. I must say I'm not an avid believer of paranormal phenomena. I think some people would believe just about anything to give life more meaning and to plug some of their soul's loopholes about their purpose on this earth. Nonetheless, I do find your rebuttal of UFOs not only symptomatic of cynical skepticism, but also very obstinate.

reply: First of all, what I have written is not a "rebuttal" or any other kind of butt. Secondly, I take it that "cynical skepticism" is skepticism applied to something you believe in. Fair enough. Anyway, you might have gotten more bite by saying that my argument is obstinately skeptical and also very cynical. Still, you'd be wrong. To be cynical is to be scornful of the motives or virtue of others, or to bitterly mock or sneer at them. 'Cynical' is too strong a word. I'm a skeptic and I'm obstinate and proud of it, but I wouldn't say I'm cynical nor is my argument against the belief that aliens landed on earth in 1947 at Roswell. Anyway, let's get to the meat of this debate. I'm sure the world can't wait to hear what we have to say on this earth shattering subject.

As you said, it is probable we are not the only intelligent beings in existence. Out of the billions of stars out there, maybe only a couple million would harbor planets where life could develop. Maybe only a small percent of that number would have more intelligent life forms than earth. We cannot as terrans make predictions as to how these life forms would think, much less extrapolate on their motives for visiting other worlds. How can we explain other worldly life forms when we can't even explain our own? How do you explain the fact that there is a species of insect that incubates 17 years in the ground and lives only one day subsequent to hatching?

reply: I think we're losing our audience here. Let's get to the point.

I don't believe in abductions, but I believe there is just too much evidence supporting the fact that we are visited by more advanced life forms to simply say that witnesses are deluded, and though most don't have ulterior motives, they didn't really see what they claimed to have seen.

reply: Now we're talking! Let's get to this evidence.

Let's talk about Roswell. Why doesn't the U.S. government release the files pertaining to the 1947 incident to the public if nothing really did happen.

They quote national security as a reason for not disclosing information. National security? What does national security have to do with it if nothing really happened.

reply: The government has released information on Roswell, but if the government released every file in the universe relating to aliens, what do you think the response would be from those camping out near Area 51 or those going to the UFO museums in Roswell? You can't trust the government! Those files are fake files, meant to deceive us! Only a fool would believe the government is releasing real files. And the reason they aren't releasing those fake files is because they have so much to hide! If they didn't, why don't they release the fake files? Huh? You see, people, it's as simple as ABC. You know it. I know it, but the buttpickers in Washington just don't get it.

I believe extremism of any kind is the nemesis of the truly open mind. Unfortunately, your obstinate skepticism is a form of extremism.

reply: Good, because I don't mind being called an extremist. It's better than being called a cynic. Or a nemesis.

You seem to have a very analytical mind. The type that warrants scientific explanation in order to validate an existence, an event, a process. Sometimes life holds mysteries that just cannot be explained in this manner. You should open up your mind, and although you shouldn't believe everything you hear, you should try to accept certain things as unexplained but plausible.

Regards
Joey Koon

reply: Joey, far be it from me to claim that life is not full of mysteries. Life itself is a great mystery. I'm a mystery to myself. Some things can't be explained. We don't have enough data in some cases. In other cases, we'll never have enough data. Why mysteries are so intriguing is a mystery. Still, it is a quantum leap of faith to jump from "mystery" to "plausible" in the case Roswell and the ten little aliens.

8 Aug 1996

Hmm... I start wondering who are the real true believers out there when I read your statement on the Roswell crash. All it says is: Something crashed in the desert near Roswell and everybody who believes that the crash was of alien origin is crazy.

reply: Are you crazy? If you read what I said and think I said that everyone who believes the crash was of alien origin is crazy then you are

crazy. I never said that, and only a crazy person would say that I did. It would be crazy to believe that everyone is crazy who believes aliens landed at Roswell and signed a treaty with the U.S. Government.

This is despite the fact that over 100 witnesses plus highly ranked military personnel support that theory. One of the military (Jesse Marcel I think) even said on his deathbed that the craft was not of this earth (would you lie on your deathbed??).

reply: My mother taught me never to lie, especially on my deathbed. However, she also taught me how to make reasonable inferences. Just because a person is dying and believes something is true, doesn't make his or her belief true and it doesn't make the person a liar if he or she is wrong.

Second, do you REALLY think that the only airfield in the world that holds nuclear weapons would mistake a crashed disc for a weather balloon? (In case you didn't know, General Ramey issued a press release stating that the debris was from a "crashed disc" from space.) I wouldn't trust them with nuclear weapons in my life.

reply: Good for General Ramey, but I thought you wouldn't trust these military types. Why do you trust this particular general and the other 100 you mentioned but not the ones who were there and can't confirm these allegations?

I seriously doubt that you even bothered to find out anything about the crash before you wrote the article. Just because the scenario doesn't fit in your narrow-minded view of the world you dismiss it as fantasy. And don't try to throw the autopsy film in my face 'cause I think that is a fake. I would be glad for a reply.

Christian Lundkvist

reply: My mother also taught me not to throw films at faces, especially alien autopsy films. But I am encouraged by your expression "serious doubts." You may make a good skeptic someday after all.

17 Jul 1997

*I just finished reading your entry in the **Skeptic's Dictionary** on Roswell.... If it was a military test gone awry, then why have they changed their explanation before? What they should have said in that event is that it was a secret military test! That would've satisfied most of the curiosity around it. Isn't it strange that these intelligent people of the military let that by? The military has admitted to testing in the past, and refused to divulge details. But on this notable occasion, they didn't. They chose to attempt a cover-up with*

an idiotic explanation. Very interesting...

reply: The military is in a no-win situation. Had they told the truth and a consistent story, they would still have been accused of a cover-up and lying. What I find amazing is that anyone can say with a straight face that the military has been able to keep anything a secret for 50 years.

.... An alien craft could certainly be pieced together with some guess work, and examined in the same fashion. It's very possible that we do have technology copied from aliens.... technology has suddenly jumped at the start of the 1900s. Remember that the first modern UFO sighting was in 1902 (I'm a bit unsure on this because I'm without my reference material on this) by a businessman in his private airplane. Statisticians have found that if we keep on at this rate, we will double our knowledge every 6 years. Some have speculated that we will hit a major slump at some point in the future because mankind won't know what else to try, what else to invent. Could it be that we did piece together an alien craft?

reply: Sure. Then again, could be that we didn't.

I welcome a response from whoever else should happen to read this!
Phil White swhite@laedu.lalc.k12.ca.us

21 Jul 1997

*I was just reading the section on Roswell in **The Skeptic's Dictionary**, and decided to contribute. A person I met at work was in the Air Force Intelligence in the 50's and was actually at Roswell at the time of the commotion. He said that it was just a pile of junk and a reflector, and definitely man-made. Oh, well, that's probably not inherently more reliable than the other testimony, but infinitely more realistic. BTW, nice piece of work on getting all that info.*

Alex Veytsel

reply: Your source's testimony may seem more believable to you and me, but the true believers will denounce him as an imposter!



[Roswell](#)



reader comments:

runes

26 Aug 1998

Many thanks for creating what I believe to be the most useful reference source on the internet. On the topic of "runes" though, I think it would be remiss of me not to point something out. You wrote that "There is no ancient document indicating any magical use of runes."

While I do not want to disagree, I would like to remind you of [The Poetic Edda](#) which is a compilation of poems collected during the 12th or 13th centuries and rediscovered in Iceland by Danish scholars. The runes are referred to in "the Sayings of Har" ("Harvamal"). Go to the fourth part, the so-called "rune-poem", which are stanzas 138 - 148. The question is not whether or not the Norse used runes for magic, but whether or not they worked (no prizes for working out that they don't).

*Despite the stereotype, the Norse were an extremely superstitious people. Remember too that this is from a period of great social change for them which undoubtedly contributed to their reliance on personal magic, as opposed to choosing which god to put their faith in. For more information on this, you can read *Myth and Religion of the North* (Weidenfeld and Nicolson, 1964) by Professor E.O.G Turville-Petre. For another broader picture of the Vikings, I can recommend any book by H.R. Ellis Davidson, in particular [Myths and Symbols in Pagan Europe](#) (Syracuse University press, 1988), as well as the very skeptical work by Ronald Hutton, [The Pagan Religions of the Ancient British Isles: Their nature and legacy](#) (Blackwell, 1991). For a skeptical view of history, Ronald Hutton's book is a must. He is as far as I know still Reader in British History at the University of Bristol.*

Thank you again for your efforts producing the Skeptics Dictionary. I am often referring to it as ammunition against irrational "new agers".

Philip Peters (member of the Australian Skeptics)

reply: Thank you for sharing this information.



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[John Paul II is
history's champion
saintmaker By Cathy
Lynn Grossman USA
TODAY, Oct. 3, 2002](#)

saint

A saint is a former human being, now dead, whose [spirit](#) is said to dwell in heaven with God. Such spirits are identified by their having belonged to [heroically virtuous](#) or holy people when [attached to their bodies](#) on earth. (The word 'saint' derives from 'sanctus', the Latin word for *holy*.)

Some spirits are officially recognized as saints by Christian ecclesiastical authority in a process known as [canonization](#). Different ecclesiastical authorities used different criteria and hence have different canons (catalogues) of saints.

Keeping a canon of saints assists in recruitment of new church members, mythologizes the faith, and allows for currying favor from subordinates close to the boss. Saints are *venerated* not worshipped, that is, they are admired and sought as intercessors because of their special place in the hierarchy. Saints are in the inner circle, so to speak, and because of their status a word from them to the boss might be sufficient to get a wish granted.

Why saints would intercede for the living seems inexplicable to the logical mind. One, they have nothing to gain by acting as anybody's intercessor. They are already in glory and their glory does not depend on others reaching glory and there is no reason they should prefer the glory of one person over another. Earthly beings might grant favors only to those who ask, but supernatural beings would have no reason for favoring only those who curry favor from them. Two, there is no reason why God would be more accessible to the prayers of a saint than to those of a holy person on earth. Why use a middleman when you can go directly to the source? Three, if God would not listen to an unholy and unworthy person who wants a favor, why would God listen to a saint's plea for such a person? The unworthy shouldn't get a hearing from the boss or his underlings. Were it not for their supposed utility here on earth, saints would be superfluous to humans.

That sainthood is valued for its intercessory value is clearly indicated by the fact that the primary method of identifying who will be canonized is by the performing of miracles. To even be considered for canonization you must not only have led an exemplary holy life, you must perform a [miracle](#) that shows you are answering the prayers of those who pray exclusively to you. Such miracles are identified by a theological board and require some sort of connection to an allegedly miraculous cure. For example, [Katherine Drexel](#), an heiress from Philadelphia who became a nun, was canonized because several cures have been attributed to her intercession. Drexel's spirit is being credited with being instrumental in the "cure" of the temporary deafness of

young girl. [Edith Stein](#), who was recently [canonized](#), allegedly interceded to save the life of a young girl who had swallowed an obviously [non-lethal dose of Tylenol](#). "[Padre Pio](#)" was a controversial cult figure and alleged [stigmatic](#).

In his effort to provide role models for the faithful, Pope John Paul II has added more than 450 names to the canon of saints since he took over the head of the Roman Catholic Church in 1978. That's about 150 more than have been sainted in the past *four hundred years*.

further reading

[reader comments](#)

- [POPE RUNNING "SAINT FACTORY"? JOHN PAUL BEATIFIES MONK ACCUSED OF MENTAL ILLNESS, FRAUD, PHILANDERING](#)
- [Aging Pope blessing everything in sight](#)
- [The Father, The Son and The Holy See Pope Pius IX](#) by R. Jeffrey Smith Washington

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Last updated 10/15/02



[Sai Baba](#)

[Santa Claus](#)



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reader comments:

saint

31 Jan 2000

I think that your article saints is oriented to Catholicism and while accurate for Catholics (and I believe, Greek Orthodoxy) it does not reflect the different usage by Protestants. The term saint is commonly used in Protestant churches to refer to any one who has accepted Jesus Christ as Savior, usually referring directly to the people seated in the meeting. The correct name of the Mormon Church is "The Church of Jesus Christ of Latter-day Saints" again referring to people who are alive.

Easton's Bible Dictionary defines a saint as: One separated from the world and consecrated to God; one holy by profession and by covenant; a believer in Christ (Ps. 16:3; Rom. 1:7; 8:27; Phil. 1:1; Heb. 6:10).

The "saints" spoken of in Jude 14 are probably not the disciples of Christ, but the "innumerable company of angels" (Heb. 12:22; Ps. 68:17), with reference to Deut. 33:2.

This word is also used of the holy dead (Matt. 27:52; Rev. 18:24). It was not used as a distinctive title of the apostles and evangelists and of a "spiritual nobility" till the fourth century. In that sense it is not a scriptural title.

Tim Boettcher

reply: You're right about which sense of 'saint' I am defining and commenting on. I know there are many other uses of the term. For example, my mother used to call her mother a saint, and everyone I knew who knew my mother called her a saint. I agree; they were both saints.



reader comments:

Santa Claus

03 Oct 1996

From: **Neil Kitchen**

Love the site. I was wondering whether you had seen this article entitled "Does Santa Exist?"

IS THERE A SANTA CLAUS?

As a result of an overwhelming lack of requests, and with research help from that renowned scientific journal SPY magazine (January, 1990), I am pleased to present the annual scientific inquiry into Santa Claus.

- 1) No known species of reindeer can fly. BUT there are 300,000 species of living organisms yet to be classified, and while most of these are insects and germs, this does not COMPLETELY rule out flying reindeer which only Santa has ever seen.
- 2) There are 2 billion children (persons under 18) in the world. BUT since Santa doesn't (appear) to handle the Muslim, Hindu, Jewish and Buddhist children, that reduces the workload to 15% of the total - 378 million according to Population Reference Bureau. At an average census rate of 3.5 children per household, that's 91.8 million homes. One presumes there's at least one good child in each.
- 3) Santa has 31 hours of Christmas to work with, thanks to the different time zones and the rotation of the earth, assuming he travels east to west (which seems logical). This works out to 822.6 visits per second. This is to say that for each Christian household with good children, Santa has 1/1000th of a second to park, hop out of the sleigh, jump down the chimney, fill the stockings, distribute the remaining presents under the tree, eat whatever snacks have been left, get back up the chimney, get back into the sleigh and move on to the next house. Assuming that each of these 91.8 million stops are evenly distributed around the earth (which, of course, we know to be false but for the purposes of our calculations we will accept), we are now talking about .78 miles per household, a total trip of 75 and 1/2 million miles not counting stops to do what most of us do at least once every 31 hours, plus feeding and etc.

This means that Santa's sleigh is moving at 650 miles per second, 3,000 times the speed of sound. For purposes of comparison, the fastest man-made vehicle on earth, the Ulysses space probe, moves at a poky 27.4 miles per second - a conventional reindeer can run, tops, 15 miles per hour.

4) The payload of the sleigh adds another interesting element. Assuming that each child gets nothing more than a medium-sized Lego set (2 pounds), the sleigh is carrying 321,300 tons, not counting Santa who is invariably described as overweight. On land, conventional reindeer can pull no more than 300 pounds. Even granting that "flying reindeer" (see point #1) could pull TEN TIMES the normal amount, we cannot do the job with eight or even nine. We need 214,200 reindeer. This increases the payload - not even counting the weight of the sleigh - to 353,430 tons. Again, for comparison - this is four times the weight of the Queen Elizabeth.

5) 353,000 tons travelling at 650 miles per second creates enormous air resistance - this will heat the reindeer up in the same fashion as a spacecraft re-entering the earth's atmosphere. The lead pair of reindeer will absorb 14.3 QUINTILLION joules of energy. Per second. Each. In short, they will burst into flame almost instantaneously, exposing the reindeer behind them, and create deafening sonic booms in their wake. The entire reindeer team will be vaporized within 4.26 thousandths of a second. Santa, meanwhile, will be subjected to centrifugal forces 17,500.06 times greater than gravity. A 250-pound Santa (which seems ludicrously slim) would be pinned to the back of his sleigh by 4.315,015 pounds of force.

In conclusion, if Santa ever DID deliver presents on Christmas Eve, he's dead now.

Rebuttal: Several key points are overlooked by this callous, amateurish "study."

1) Flying reindeer: As is widely known (due to the excellent historical documentary "Santa Claus is Coming to Town," the flying reindeer are not a previously unknown species of reindeer, but were in fact given the power of flight due to eating magic acorns. As is conclusively proven in "Rudolph the Red-Nosed Reindeer" (a no punches pulled look at life in Santa's village), this ability has bred true in subsequent generations of reindeer - obviously the magic acorns imprinted their power on a dominant gene sequence within the reindeer DNA strand.

2) Number of households: This figure overlooks two key facts. First of all, the first major schism in the Church split the Eastern Churches, centered in

Byzantium, from the Western, which remained centered in Rome. This occurred prior to the Gregorian correction to the Julian calendar. The Eastern churches (currently called Orthodox Churches) do not recognize the Gregorian correction for liturgical events, and their Christmas is as a result several days after the Western Churches'. Santa gets two shots at delivering toys.

Secondly, the figure of 3.5 children per household is based on the gross demographic average, which includes households with no children at all. The number of children per household, when figured as an average for households with children, would therefore have to be adjusted upward. Also, the largest single Christian denomination is Roman Catholic, who, as we all know, breed like rabbits. If you don't believe me, ask my four brothers and two sisters - they'll back me up. Due to the predominance of Catholics within Christian households, the total number of households containing Christian children would have to be adjusted downward to reflect the overloading of Catholics beyond a standard deviation from the median.

Also, the assertion that each home would contain at least one good child would be reasonable enough if there were in fact an even 3.5 children per household. However, since the number of children per household is distributed integrally, there are a significant number (on the order of several million) of one child Christian households. Even though only children are notoriously spoiled and therefore disproportionately inclined towards being naughty, since it's the holidays we'll be generous and give them a fifty-fifty chance of being nice. This removes one half of the single child households from Santa's delivery schedule, which has already been reduced by the removal of the Orthodox households from the first delivery run.

3) Santa's delivery run (speed, payload, etc.) These all suffer from the dubious supposition that there is only one Santa Claus. The name "Santa" is obviously either Spanish or Italian, two ethnic groups which are both overwhelmingly Catholic. The last name Claus suggests a joint German/Italian background. His beginnings, battling the Burgermeister Meisterburger, suggest he grew up in Bavaria (also predominantly Catholic). The Kaiser style helmets of the Burgermeister's guards, coupled with the relative isolation of the village, suggest that his youth was at the very beginning of Prussian influence in Germany. Thus, Santa and Mrs. Claus have been together for well over one hundred years. If you think that after a hundred years of living at the North Pole with nights six months long that they remain childless, you either don't know Catholics or are unaware of the failure rate of the rhythm method. There have therefore been over five generations of Clauses, breeding like Catholics for over one hundred years. Since they are Catholic, their exponential population increase would obviously have a gain higher than the world population as a whole. There have therefore been more than enough new Santas to overcome the population increase of the world. So in fact, Santa has an easier time of it now than he did when he first started out.

Santa dead, indeed - some people will twist any statistic to "prove" their cynical

theory.

[Author Unknown]

10 Nov 1997

*I just read a bit of your **Skeptic's Dictionary** and the entry on God and Atheism. I liked it so much so that I'm sending it to a few friends that will also appreciate it. My personal opinion about God and Atheism is that neither can be proved, so both seem to be a kind of faith, however, Atheism is, by far, the more thoughtful choice. In the past few months I have caught my limit of religious people, not spiritual people, mind you, but religious ones, especially those of the Christian variety (having been a home-grown Catholic myself, I'm able to spot them at quite a distance), and I have come to calling that particular brand of God - the one you define - as Santa God since Santa and God share so many nearly identical characteristics.*

Somehow, when we grow up it is considered wildly unreasonable (nutty, in fact) to believe in Santa (a kindly old - ageless, in fact -white-bearded man (with no beginning and no end) that has an ambiguous relationship with a woman (Mrs. Claus/Mary), surrounds himself with flying creatures (reindeer/angels), has many helpers (Santa's helpers/saints), a man who can be all places at the same time(omnipotent) - at least on December 24th, reads our minds (omniscient),reads the letters we send him but never responds to them (prayers)unless the responses are really from kindly people at the Post Office(clergy), knows if we are bad (sinners) or good (saints) and rewards us accordingly (heaven and hell, but not in that order). And yet, at the same time, it is also considered wildly unreasonable to disbelieve in God even though they are nearly the same childish wish for a kindly, but fair, protector. Hence the name Santa God since they are two versions of the same fairy tale. And as with most fairy tales, the version for children is much sweeter than that darker, original version that was written for adults.

These singular, uppercase, Only-One-Possible Gods usually show their faces in the mostly western world which tends to be much younger and less sophisticated in its outlook and needs than the eastern world that believes in multiple gods. But my God (no pun intended), when are we in the west going to grow up? I admit, it's nice to think that there are guardian angels and that all I have to do is pray to God and I'll get that new car I've been wanting or even get rid of war, but doesn't it say in the Bible that when we grow up we must put away our childish things? and isn't Santa one of the most childish - albeit sweetest -things we have? So doesn't it stand to reason (literally and figuratively) that we should also put away his older brother while we're at it? At least that's what the Bible says. And I always do what's in the Good Book.)

Well, gee, didn't expect to go on like that. When I get a little more time, I'll peruse your site some more and read about the other jewels with which you have salted your mine.

Patricia



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 [spontaneous human
combustion](#)

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star child

A star child is the offspring of a human and an alien.

See **related entries** on [alien abductions](#) and [Zecharia Sitchin](#).

Last updated 01/01/02

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reader comments:

satan

13 Jul 1996

When water gathers from the rain, it is directed to the LOWEST places and DUMPED (in the lowest places) at the end of the river it follows Do you see your life in 20 or 30 years ?

So whenever GOOD people who are NOT involved with DEMONIC activity make GOOD, demonic activity strives to use any MEDIA available to make GOOD PEOPLE look bad.

It is obvious, even to the most casual observer what has taken place here.

Unfortunately, you have NO LIFE, no POSITIVE goals, or no POSITIVE directions.

RODERICK MCAFEE

reply. What is obvious is not always obvious. And remember: you cannot lock a broken door. Nor is it chivalrous to engage in a battle of wits with an unarmed man.

In your "Satan" entry, you write: "As the power of the Christian Church has waned, so too has the power of Satan It is no accident that Satan reached the peak of his career at the same time the Church did, during the thirteenth century." This is not true!

The peak of the satanic scare and of the witch trials happened in the early part of the seventeenth century. Heresy trials did happen during the middle ages, but the large scale inquisition trials happened in the modern era, mostly in Spain.

The thirteenth century was the peak of the church influence (it was the era of the great cathedrals.) But it was not the era of the inquisition or of the witch trials. And the inquisition (catholic) and the witch trials (mostly Protestant) were two basically distinct phenomena.

Get your facts right!!!!!!!!!!!!!!!

Filippo Neri

Los Alamos National Laboratory

reply: Good idea. The era of the great gothic cathedrals was not the 13th century, but the 11th and 12th. And the witch trials were not mostly Protestant, although the Protestants were every bit as prolific and sadistic as the Catholics when it came to witches.

Europeans started building massive stone cathedrals after the earliest crusades. The crusaders brought back from the east more than blood and gold. They must have taken some time to admire the mosaics and icons of "Notre Dame," Our Lady, that are dominant features of many Byzantine churches. Before the crusades the Blessed Mother was not a dominant Christian motif in the west. After the crusades, she was elevated nearly to the status of goddess.

The title "inquisitor" (judge in matters of faith) was first granted by Pope Alexander III in 1163 at the Council of Tours. The main "devils" at that time were the Albigensians. But the Inquisition really got started by Innocent III, who became pope in 1198. Jones claims that he initiated the Fourth Crusade (which took Constantinople) to channel the divisive crusading energy of nearly all of Europe which had led to "an open war between Satan and the church." [Jones, p. 255] Maybe. But Innocent certainly used the power he gained for the church to extend his political domain. And in 1209 he called for a crusade against the Albigensians to drive the devil out of France. "He gathered an army which in its hatred of satan and its zeal for god's service established new precedents." [Jones, 256] And he is reported to have said, when asked what to do with the heretics, something to the effect of *kill them all; God will sort them out*. It is estimated that by the end of the century (the 13th century) a million people were slaughtered in God's name. [Jones, 257] Also, it was in 1232 that Gregory IX empowered the Dominicans (the *Domini canes*, hounds of God) to be inquisitors as well as itinerant preachers. Gregory's major crusade was against a fishing community accused of worshipping the devil, who was, according to the inquisitors, appearing to these people under the guise of a duck, a goose or a youth. And "when they kissed him and danced around him, [he] enveloped them in total darkness wherupon they all, males and females, gave themselves up to debauchery." [Jones, 258] Gregory's chief inquisitor was Conrad of Marburg, a man in no way inferior to Torquemada in understanding the wiles of the devil and the need to be merciless in fighting Satan.

The thirteenth century saw the edges between heresy and witchcraft blur so that the distinction between the two is often unrecognizable. Satan was behind heresy and he was behind witchcraft. He was everywhere, gaining more and more in power and influence. The methods of fighting Satan had to become more and more brutal and savage; fire had to be fought with

fire, evil with evil. This is why Paul Carus writes: "In the thirteenth century the Devil reached the acme of his influence...." [Carus, 282] Of course, this was before the invention of the printing press, so the written accounts from this period are scarce compared to the seventeenth century when anyone with a pen and a clerical education could publish a book in God's honor. But we do have some writings from this period besides those of Thomas Aquinas.

Yet, we should probably start with Aquinas. His theory of incubi and succubi reflects a widely held view of the time. The devil is everywhere and he has a potent sex drive. Any person or animal you meet could be the devil in disguise. Other writings give testimony to the pervasiveness of satanic superstition which emerged in full force during the thirteenth century. It had been growing for centuries, but it peaked in the thirteenth century. In 1211, Tilberiensis explains nightmares as caused by the devil [Carus, 283] Caesarius von Heisterach (died about 1245) writes of Satan as the cause of thunder-storms, hail-storms, inundations, diseases, unexpected noises, the rustling of leaves. Satan appears "as a bear, a monkey, a toad, a raven, a vulture, a gentleman, a soldier, a hunter, a peasant, a dragon, and a negro." [Carus, 284] Caesarius's work is called *Dialogus Miraculorum*; it was written mainly for instructing young monks. It presents in detail the many superstitious beliefs about Satan pervasive in the thirteenth century.

In my view, Satan was at his peak when his influence was felt by nearly everyone; when his presence in the world was an acknowledged fact; when he became a major player in the daily lives of everyman. That happened in the thirteenth century. The persecution of heretics and witches continued for over four hundred years. The Protestant Reformation did not protest either, nor did it reform these practices. The Protestants did not initiate them but, when they had their chance, they equalled or surpassed the Catholics in ferocity and zeal.

My opinion is that the ferocious persecutions of heretics and witches from the thirteenth through the seventeenth centuries is symbolic of the waning power of the Church. It was losing its magic, literally. Satan's magic had to be fought with diabolical weapons. In my view, it was not the last witch trial or heretic burning that signalled the end of the Christian era of power. A more symbolic event might be picked, such as, putting lightning rods on the tops of church steeples. Churches resisted for years because, as everyone knows, lightning is caused by the magic of God or Satan. If God zaps the church or let's the devil do it, there must be a divine reason for it. Prayers and incantations should be enough to fight off Satan. I'll finish with a quote from Jones:

It was long before the churches consented to be protected by the heretical tool [known as the lightning rod]. The tower of St. Mark's in Venice had at the time of Franklin's invention been struck again and again by lightning, sometimes with

such disastrous effects that it had been almost destroyed. The Almighty, or alternatively the Powers of Darkness, seemed to have singled it out for special punishment, in spite of the angel that adorned its summit, the consecrated bells which were repeatedly rung to drive away the thunder, the holy relics in the cathedral nearby and the processions of the Virgin and the patron saint. The tower was struck again in two successive summers after the lightning rod was introduced in Italy, whereupon the authorities succumbed and a rod erected. The edifice has never been struck since, but God alone has received the thanks of a grateful people.[Jones, 295]

I guess we can say that, for some people, faith is stronger than the lightning rod.

p.s. My *opinions* may differ from yours, but I think I have most of the facts right.

[Fillipo Neri's reply](#)



[satan](#)

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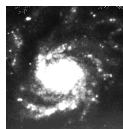
reader comments:

scapulimancy

09 Sep 1996

In reading through your section on scapulomancy, I noted that you have omitted reference to evidence that this practice has ancient origins. If memory serves me correctly, I believe that it was practiced in China's earliest pre-historical and earliest historical periods (Shang dynasty-approx 2200 B.C.). Words were written on the bones and the cracks through the writings were then interpreted. It was imperative to guard the new writing skills from being disseminated in order to maintain a monopoly on this method of divining the gods' wills. This is my recollection from my studies of ancient Chinese history and religion. Though somewhat rusty from lack of use and vague, I hope you find this information interesting.

B. Dorsey



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- [Velikovsky's Worlds in Collision](#)
- [von Däniken's Chariots of the Gods](#)
- [Joel D. Wallach, "The Mineral Doctor"](#)
- [Zermatism](#)

Other Sources

- [The Seven Warning Signs of Bogus Science](#) by Robert L. Park
- [Junk Science](#)
- [Eric's History of Perpetual Motion and Free Energy Machines](#)
- [Bad Science](#)
- [Astrology, Psychic Stuff, and Skepticism](#) maintained by Philip R. "Pib" Burns
- [Written In The Stars? The History And Psychology Of Western Astrology](#) - Wayne Spencer
- [Archaeological/Skeptical Resources, Critiques of cult archaeology, Roman Britain links](#)
- [Bad Astronomy](#) - Phil Plait
- [Bob Park - The American Physical Society](#) - Newsbriefs on pseudoscientific endeavors and the politics of science
- [Tesla](#)
- [Museum of Questionable Medical Devices](#)

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reader comments:

selective thinking

16 Jun 1999

Just wondering if you could point me in the right direction. For the last 10 years or more, at least twice a month, my eyes pop open and I look at the clock (digital) and it's 3:15 am.

It's happened more and more recently. I've spoken to my astrologist (and my therapist) about this occurrence. She doesn't really have an explanation. In the last two years, I've noticed it more (or became more aware of it) and when I'm driving my car in the daytime I happen to look down and my clock radio will say 3:15.

What is this and how can I find more information on this issue?

Thanks for your help, Debra

reply: Many people experience the same thing, but with different numbers. In our family, the number is 338, which was the number of the street address of a family member. We "see" more occurrences of 338 because we pay more attention to that number than to any other number. We never remember waking up at other times, because we don't give those other times any special significance, but if we wake up at 3:38 (or close to it) we pay attention. Same with license plates, prices, numbers in articles, etc.

It's a simple matter of [selective attending](#). The phenomenon is related to numerous errors based on [confirmation bias](#).



shroud of Turin

21 May 2002

The reason why a fire can't change the apparent date of the Turin Shroud is that to do so, the fire should change the amount of C-14 atoms compared to C-12; to make the date 2/3 younger (e.g. 700 years old in stead of 2000 years old) one should add so much modern C-14, that 2/3 of the carbon weight should be modern. If a fire would have added soot, then 2/3 of the weight by carbon, about 6/7 by total weight, should have been soot. So it's not so much the fact that the pieces were cleaned and burnt, but the fact that they weren't a large mass of black soot hiding the original cloth as a minor component.

The same goes for pollution with molds and bacteria. Only when photosynthesizing organism (e.g. algae or moss) had added about twice the original mass in dry weight they could have caused the decrease in age from 2000 to 700 years.

Alternatively, the fire or algae could have taken out C-12 preferentially, but then this preference would have to be so strong that (in the best case) 2/3 of the C-12 was taken out, and none of the C-14. However, none of the known processes that cause isotope separation can be so effective, so that possibility is also about as probable as a flying elephant. Moreover, you can't remove at least 2/3 of the carbon atoms from cellulose fibers without utterly disintegrating them.

JW Nienhuys

29 Apr 2002

I followed the link from your site to the ABC story about Turin Shroud, which includes the following:

“In 1977, American scientists Eric Jumper and John Jackson processed electronically a negative photographic image of the shroud and discovered that it produces a three-dimensional image, a feature that is not possessed by normal paintings or photographs.”

I remember reading about this years ago in a spectacularly credulous Reader's Digest article. It vaguely intrigued me then as it seemed to suggest that even photos of the shroud have some kind of magical property. If I remember correctly, the peculiar feature was not that a three-dimensional image was produced by the processing – they expected that – but that unlike “normal paintings or photographs” it was undistorted and actually resembled a human face.

However, there isn't anything really remarkable about this. The type of image processing Jumper and Jackson did basically produced a 3D image which “raised” the light parts and “sunk” the dark parts of a black and white image – similar to the “embossing” option on many Photoshop-type software programs.

The image on the shroud is symmetrical, with uniform lighting of the features, hence a symmetrical, undistorted image after processing. Most photos and especially paintings show a person's face from an angle with light shadowing one side of the face, which would produce a warped image. So if you photographed someone from directly in front, with a soft light source from the same point, you could produce your own “magic shroud” 3D image.

It's a shame ABC simply parroted this actually-not-very-interesting-at- all factoid from the 70s without following it up – but I guess “Turin Shroud shares same property as other symmetrical images” doesn't make much of a story. Keep up the good work on the site.

Regards, Michael Geissler

14 Apr 1997

Query,...why is it that people who choose to believe are labeled sadly misguided?

reply: I don't know about the "sadly," but we non-believers think anyone who believes in the occult, supernatural, paranormal or pseudoscientific are *misguided* because if they were properly guided they would agree with us!!

One must consider the aspects of faith.

reply: we have considered faith, and we have rejected it as a reasonable choice.

In fact, faith seems to be the predominant aspect in your views,...faith that what you perceive is true. You choose to perceive the shroud as a fake or a hoax when in fact to be quite honest the evidence to support either side is quite strong. You have made a choice based simply on faith contrary to all the argumentative data and you find evidence to support it just as the believers do.

reply: you seem to know me better than I know myself! If I thought the evidence was as strong for the shroud being genuine as it is for its being a fake, I would not take the position that it is a fake. If I did, you would be right; but I don't, so you aren't. As I see it, there is overwhelming evidence that the shroud is a fake, and very little evidence to support the notion that it is the death shroud of Jesus.

For example, evolution cannot be proven as fact and is a theory but mainstream science chooses that alternative out of faith just as a Christian believes in the Creation.

reply: ??? How did we get into the topic of evolution? Are you insinuating that if a person believes the shroud is genuine, they are thereby committed to reject evolution in favor of creationism? For your information, many Christians believe in both the shroud *and* evolution.

Your real war is not to prove or disprove the shroud but to validate your own faith or you wouldn't even waste your time on such subjects.

reply: You should switch from critical theology to psychology. You seem to have a deep grasp of ulterior motives.

Even if you consider your aspirations as noble and are to save the poor pitiful believers such as myself who are sadly misguided, spare me, would you, and be honest with yourself.

reply: Believers such as yourself are probably beyond redemption. My hope is that some of the younger generation will be stimulated to think about some of the things they have been asked to take on faith by their elders and that they will reject the crooked aspirations of their parents and take to the straight and narrow byway of skeptical righteousness.

It is true [that] whether the shroud is real or not doesn't validate Jesus as God,...but I choose to believe He is. And that is what it is really all about.

David Downs

reply: I respect that choice; please respect mine.

14 Apr 1997

It does not matter if the Shroud of Turin turns out to be a real burial cloth. I definitely agree with you on this. Even if the image is produced from a dead man, who is to say that man was Jesus? There were many crucifixions, and I suppose, many people wrapped in shrouds afterwards. Who's to say that it isn't all a hoax? A sick individual may have performed his own crucifixion of an individual similarly to the accounts of the Bible. Don't be surprised at what people will do for a little bit of money. After all, these are how many so-called miracle artifacts came about.

Like you said, it isn't the death of Jesus, but the Resurrection. I believe that abstract and creative thinking separates man from animals. This is how faith comes about. It's unexplainable how an individual can put their beliefs in something so out of touch with 'reality.' If an individual puts his trust in God, or any gods for that matter, then the individual must realize that science will not prove the existence of such deities because science is explainable and faith is not. So instead of individuals basing their faith on scientific evidence and/or debating with others about it, I suggest to them to keep their faith and look for no other explanations. If not, they may find their faith not enough and may find confusion intermingled with disappointment...like myself.

Highley

*Great dictionary! I recently read the Feder book you mention in the section on the Cardiff Giant. In his chapter on the Shroud of Turin, he mentions that a 13th Century Pope (I'm sorry, I'm at work right now and the text is at home, so I'm paraphrasing here) issued an edict stating that the Shroud was a fake and could *not* be displayed as the actual shroud of Christ. Yes, written proof (sort of) that the Shroud's a phony.*

*Skeptically Yours,
--Cory Herndon*

In regards to your information on the web about the Shroud of Turin - What about the claim that because of the supposed ability of the shroud to impress its image on other cloth that is next to it, during the middle ages, several "copies" (I believe six) were supposedly made of the shroud by placing clean pieces of cloth next to it. The original was hidden away or lost afterwards. What we know to be the shroud would actually be a copy of the original and, therefore, should date to be much younger than the actual shroud. I try to be very skeptical but have never seen any refutation of this claim. In fact, for some reason, whenever I see a show or read some material on the Shroud, this information is never discussed, even though all other material, no matter how insignificant, is discussed in full.

--RG Downey

reply: The reason this material is not discussed is probably because someone just made it up. No Church authority has ever claimed that the Shroud could magically transfer its imprint to cloth next to it. You can bet that if the Shroud had this magic power, the "miracle" would have been documented long ago and there would have been no need to do any carbon dating. In fact, I've never heard this claim until you brought it up. Where did you get it? It sounds like an [ad hoc hypothesis](#) to me. It's very clever, actually.

I read with interest the discourse on the Shroud of Turin. A friend asked me what I thought about its authenticity. I shared with him that, based on my reading of Scripture, it could NOT be genuine. I read from St. John Chapter 20, verses 6 & 7. Jesus had risen, the disciples came into the tomb and found the

CLOTHS (plural) lying folded, and the NAPKIN THAT HAD BEEN WRAPPED AROUND HIS HEAD lying separate from the CLOTHS (plural). I checked the original Greek and found the translation to be accurate. If the Bible is to be believed, Jesus was wrapped in at least THREE cloths, one of which was wrapped about his head. The Shroud of Turin is supposed to be ONE cloth which wrapped the body from feet to head and back to feet. There is no evidence on the Shroud that would indicate that his head was bound with a napkin or that there were any other cloths used in the burial process. I would be interested in others thoughts on this subject.

--Joe Mallinson

24 Jun 96

Your item on the Shroud of Turin is rather sparse in information and the tone of the article is biased against the shroud. Let me offer the following items:

- the shroud image is limited to the first two or three fibrils of the surface, just a few microns and is composed of desiccated linen fibrils ... no pigments are present except for microscopic quantities of pigment presumably transferred to the shroud when it was brought into contact with paintings (this image transfer referred to in your listing is a misunderstanding of that process)*
- the image is not only anatomically correct, but its distortions are those which would be present if the image were directly transferred in some way to a cloth wrapped around a body.*
- the blood is real human blood and saturates the cloth (or did when the image was fresh) (this is determined by transmission tests)*
- there is no known way to duplicate the image on the shroud even with modern technology, making claims that it is a "fake" sort of silly -- a fake what anyway.*
- the shroud image on the evidence can only have come from a cloth wrapped body of a man showing all the signs of a brutal crucifixion.*
- several aspects of the carbon dating are highly questionable -- certainly the fact that no comparable samples of known provenance were used so the dating is highly suspect since there are no "benchmarks"-- tree samples don't count. There has been quite a lot of information coming out on the problems with the dating (1) linen selectively takes up Carbon 14 in its fibrils rather than its husk so this produces an artificially enriched sample vis a vis the whole plant, (2) the shroud was exposed to a severe fire in 1532 to reached temperatures high enough to melt the silver reliquary in which it was stored -- it was barely saved. Studies of this have shown that the resulting high temperature steam would have further enriched the carbon 14 contents, finally (3) recent work by the Health Science Center show that the linen does not remain passive but has taken up bacteria and fungi through the centuries -- this is also a source of carbon 14 enrichment. In view of the contamination it is hard to know what the dating of the shroud should be -- but certainly the subject is still open.*

I just thought I'd drop you this jot -- as I've been a close student of the shroud for many years -- at least since 1960.

Regards, Ray Schneider

reply: Well, Ray, I don't know what to say. Seems like you've got this shroud covered!

04 Aug 1996

I just skimmed your Shroud of Turin information quickly, and thought you'd like to know that Ray Schneider's information on the Shroud is utterly incorrect. For example, he claims that the Shroud contains real blood, but, in fact, the bloodstains are actually red paint (not that it would prove anything if they were blood, of course- it would still be much more reasonable to assume it to be a fake.)

The real howlers come in his rather bizarre arguments about C14 enrichment by hot steam. The simple

fact of the matter is that C14 isn't enriched by steam, linen doesn't magically absorb C14 better than C12, etc. etc. Since C14 and C12 are chemically virtually identical, there is no natural physical process which can significantly separate the two. Interestingly, creation "scientists" also make up strange arguments about isotopic enrichment to explain away the results of radioisotope dating of rocks.

Anyway, you probably know all this already; I just wanted to drop you a line just in case you hadn't, since I thought you'd be interested.

Ben Sandler

07 Jul 1996

Dear Bob,

I enjoy your column, which is what it amounts to thanks to your thoughtful inclusion of a Recent Additions page. I wish the people over at the Urban Legends page would follow your lead.

I would like to know how many scientists who have studied and supported the authenticity of the shroud were not Christians before they investigated it. I would guess that the number is small. Allowing a Christian to do the job is something like asking a Scientologist to examine Hubbard's claims or a Mormon to examine Smith's.

Anyway, enough of my blather; here's an article from today's [Sunday Times \(London\)](#).

Malcolm Davidson

Gdansk, Poland

28 Aug 1996

Your dictionary entry on the Shroud of Turin is biased towards inauthenticity for it does not describe numerous findings that point toward authenticity.

For example, it mentions the C14 dating but does not discuss many observations that support some other dates. It looks like one C14 dating is an absolute certainty. A critical mind should ask for more than this.

reply: There have been several datings of the shroud, not one, and all point toward a medieval origin. Absolute certainty? Now there is an expression which can muddy the waters, which I am sure you would not want to do..

Just to mention one fact: a reproduction of the Shroud has been found in the Hungarian codex Pray, dated 1192. But the C14 dating declare a 1260-1390 range. The Shroud is obviously before 1192, even before that if we study the iconography evidences. What does happen to the probability of the C14 dating if we change the range with 1192 as its mean? No one knows for the 3 laboratories never disclosed the raw data of the C14 dating!

Many irregularities occurred during the C14 dating. Just to mention one bad fact: the raw data of the dating were never disclosed and so far after many requests they were kept secret. Only the statistical results are known. But what is the problem about making them available? Of course the problem is that it is not possible to evaluate other range of dates by other scientists. After taking so much precaution to choose a method of dating that use a small amount of the Shroud it would be the least to publish all data.

reply: What "raw data" are you talking about? Do you think there was an academic conspiracy to hide the truth from scholars such as yourself?

Your observation that "the authenticity of the Shroud is of no interest to the skeptic" is strange. Is "authenticity of the Shroud" of any interest? If not, why discuss it? It sounds like "whatever the result" it does not change the skeptic point of view. Then the skeptic point of view would not be changed by whatever the truth is, which is a vacuum point of view.

reply: I would think a careful scholar such as yourself would have figured out that what I meant was that even if the Shroud is the one Jesus was wrapped in that would not be of evidentiary value towards supporting the claim that Jesus is God.

Taking Joe Nickell's book as a reference to support inauthenticity is a very weak handle. Joe Nickell displays a lack of understanding on many relevant fields too numerous to list. I'll mention only his handling of the 3D information of the Shroud. He argues based on some picture taken by some computer program that 3D information does not exist, not knowing how it was done. It is utterly nonsense simply because the naked eye can perceive the 3D information looking at the Shroud. No need of a computer here! 3D information can be carried in many ways and Nickell is simply using the wrong instrument. It is true that some studies were done using a computer but it was to study its 3D information objectively without an observer.

reply: Joe Nickel's work stands on its own and is not in need of any defense from me. The main instrument he seems to use is his brain, which seems to me to be the right instrument.

Another important fact: the Greek text of John 20:6-7 is often badly translated to suggest that the soudarion was apart from the othonia. It is not what the Greek text says, and this has been recognised by many koine greek scholars. It says that the soudarion (a piece of cloth to hold the jaw closed) was distinctly enrolled in its only and unique place. In other words no piece of cloth moved and everything looks like the body disappeared without any human external intervention. Moreover, the word soudarion is a diminutive and should not be taken as the cloth covering the whole body it is rather one of the othonia that should covered the whole body. The greek text has to be read to realise the beauty of the concise method used by the evangelist to describe this crucial and turning point of his finding.

reply: The diminutive soudarion was apart from the othonia, eh. Well, that wraps it up for me. This is definitely the work of divine inspiration and meddling.

The Shroud of Turin has to be studied with great care to realise its true source.

**Mario Latendresse
University of Montreal
Parallelism Laboratory
CANADA**

reply: No doubt about it. But wait, Mr Latendresse of the Parallelism Laboratory is not finished with me yet.

5 Sep 1996

In reading your entry on the Shroud of Turin I was surprised to see the following sentence. (at least coming from a philosopher)

"Of course, the evidence is limited almost exclusively to pointing out facts that would be true if the shroud were authentic."

And the most troublesome for someone who believes in the scientific method

"Not only is consistency with the authenticity claim merely a necessary and not a sufficient condition for the claim to authenticity being true. ..."

But all natural science theories have necessary conditions and never sufficient ones! Can you name one theory of physics that have sufficient conditions? They all match the known data, but that does not prove

that it describes reality. The Newtonian theory matches some data but that never proved its validity. And that is the same for all physical theories.

reply: I fail to see the significance of the conditions for establishing the reasonableness of a scientific theory and the conditions for establishing a factual claim. However, I will say that there seem to be many people who think that it is sufficient support for both facts and theories to find evidence consistent with them. These people are misguided, I believe. Scientific theories are explanations and while consistency with the facts is a necessary condition for a scientific theory to be considered worthy of acceptance, it is not a sufficient condition. Establishing that something is a fact, such as that it is a fact that the shroud dates from the time of Jesus, has very little in common with establishing a physical theory.

Moreover, the theory of a medieval forgery has been shown to be highly improbable. You have to address this question in your column: if it is a medieval forgery how was it done and what type of person could have done it. You'll soon discover that such a forger is beyond technical capability of the time.

Mario Latendresse

reply: I take it you think you are the one who has shown that it is highly improbably that the shroud is a medieval forgery, because that view is one that not even the Church holds. I think it has been adequately demonstrated that it is highly probable that the Shroud of Turin is of medieval origin, is painted with paint and not the blood of Christ or anyone else, that defenders have made false claims about pollens and other things to make it seem consistent with an origin in ancient Palestine, etc. Finally, the "forgery" is no more beyond the technical capability of the time than was the moving and carving of megaliths by ancient humans.

29 Sep 1996

As a "rebuttal" to your article on the Shroud of Turin, Mario Latendresse of the U. of Montreal writes:

"Just to mention one fact: a reproduction of the Shroud has been found in the Hungarian codex Pray, dated 1192. But the C14 dating declare a 1260-1390 range. The Shroud is obviously before 1192, even before that if we study the iconography evidences. What does happen to the probability of the C14 dating if we change the range with 1192 as its mean? No one knows for the 3 laboratories never disclosed the raw data of the C14 dating!"

If, in 12xx AD I were to create a "fake" of the burial shroud of Jesus, what would prevent me from using the Hungarian codex Pray as my reference, especially if I thought that the codex was regarded as authoritative of what the shroud was supposed to look like? I wish you had asked that question in your response to Mr. Latendresse's remark.

reply: I wish I had, too!

*By the way, I admire your work in putting together the **Skeptic's Dictionary**. I'm about halfway through reading all of the articles. It amazes me how so many true believer's comments are to the effect that you "fail to disprove" so-and-so, when you make it abundantly clear that that is not your intent. There seems to be some fundamental inability on the part of many to see the difference between an "attempt to prove a negative" and a "skeptical view of 'proof' of a positive". I imagine that can be very frustrating.*

Karl Jennings

reply: you imagine right, Karl. But there is a bright side, too, such as the missives from Mr. Latendresse, who has something to say to you, too.

7 May 1997

I was surprised to see my email message posted on your site. I believe the following answers should be posted as well !

Karl Jennings comments my remark about the codex Pray:

"If, in 12xx AD I were to create a "fake" of the burial shroud of Jesus, what would prevent me from using the Hungarian codex Pray as my reference, especially if I thought that the codex was regarded as authoritative of what the shroud was supposed to look like? I wish you had asked that question in your response to Mr. Latendresse's remark."

Of course this has to be addressed, and it has been addressed by the persons who first brought the subject about the codex Pray and the depiction of the Shroud in it. I thought that a skeptical mind would look at those arguments and address them head on. But nothing such appears in that comment.

And I am a skeptic ! I verify everything.

Now the codex Pray and why the evidence shows that the depiction of the Shroud in it is a copy of the Shroud of Turin and not the opposite.

But first a little explanation as this is necessary for any skeptical mind, including myself.

On the codex Pray not all details of the Shroud are depicted. It is clearly a depiction of the Shroud but a good simplification of what can be seen on it. One detail that the artist reproduced: tiny holes of the Shroud. They are indeed the small holes that can be found on the Shroud. That can be perceived simply by looking at both of them. We don't know how and when they were done.

Now you could still think that the forger of the Shroud reproduced the holes on the Shroud according to the codex Pray. But this does not explain why the artist of the depiction found in the codex would have done these random holes. There is simply no artistic value to them. They are just there without reason.

In this context it is much more likely that the copy was performed in the direction Shroud -> codex Pray. That would bring the Shroud before 1195.

I think this is common sense.

(I would add that among the publishers of dictionaries this is a common way to detect unlawful duplication: they purposely introduce mistakes here and there (like a misspelled word in a entry of a word) in their work. They could prove that duplication occurred base on these. Common sense again.)

You'll say that the codex Pray does not prove that the Shroud is still authentic. Granted, that is obvious ! But it makes one more fact against the range 1260-1390 of the C14 dating. You'll think one hundred years won't change the argument that much, but it probably brings the statistical base of the range out of wack !

To accept a date as early as 1260 for the Shroud we have to resort, once again, to the strange explanation that the artist simply put random holes on his depiction without purpose.

Another comment by Mr. Jennings:

"It amazes me how so many true believer's comments are to the effect that you "fail to disprove" so-and-so, when you make it abundantly clear that that is not your intent. There seems to be some fundamental inability on the part of many to see the difference between an "attempt to prove a negative" and a "skeptical view of 'proof' of a positive". I imagine that can be very frustrating."

On the contrary a positive is stated about the Shroud. The dictionary states that it is very likely a fake or if you like a forgery of medieval epoch. This is a positive statement. It is now the duty of the person that states a positive fact to sustain it with some evidences. And can many known facts be forgotten and still be taken seriously ? I think not, because otherwise Mr. X could sustain that my home town does not exist, which I would regard as not serious. Yes Mr. X could sustain that more than one hundred different maps found around the world do not show the town of Joliette of the province of Quebec(Canada). He would then have a case? But to many I think it is not serious, because I simply offer to show to Mr. X some other evidences to the contrary. These have to be looked at and discuss to realize that even one hundred maps still does not sustain well (not to say seriously) his argument.

This is a skeptical endeavor. Known facts has to be explained.

I address the comments made by the owner of the skeptical dictionary:

"I take it you think you are the one who has shown that it is highly improbable that the shroud is a medieval forgery, because that view is one that not even the Church holds."

I think this shows that you have been misinformed. It is customary to hear this comment that the Roman Catholic Church either declared the Shroud a fake or that it declared it unlikely to be authentic. Neither statement is true. And that is a fact that can be verified from the RCC itself.

Where did you get this information from ? Some argue that the RCC declare it a fake since the official authorities presented the 1988 C14 dating of medieval epoch. But they simply presented the final result and never declare it a fake. As a matter of fact, Pope John-Paul II made the clear statement that for the Church the OFFICIAL (his own words) scientific data were the 1978 scientific inquiry.

Whatever I think or any body think about such statement, the fact is that the RCC did not declare it a fake nor declare it to be authentic. It has never been officially done.

And to rebuke more this point, I'd like to point out that since the 16th century, may 4th is the official RCC day, celebrating the Shroud of Turin. So it is not declared authentic, but every member of the RCC has to make their own mind about it, and it is clear that the Pope John-Paul II believes it to be authentic. And John-Paul IIe is not alone among the Popes to have believed in its authenticity.

"I think it has been adequately demonstrated that it is highly probable that the Shroud of Turin is of medieval origin, is painted with paint and not the blood of Christ or anyone else."

It is quite obvious that you have not looked at the subject of the Shroud being a painting. Even Joe Nickell, who you believe to have shown the Shroud to be a fake, does not believe this possible. That is why they have now these strange methods to try to reproduce it. Painting simply does not work. Look with your own eyes ! Hundreds of artists copied it, and it never has the quality that the original has. Even, present artists cannot copy it and keep the anatomical details correct.

Blood has been shown to be on the Shroud. Do I have to bring up all studies that were done ?

"....that defenders have made false claims about pollens and other things to make it seem consistent with an origin in ancient Palestine, etc. "

No false claims were done about the pollens. To my opinion the pollens is simply too weak an argument. That's all. But false claims ? WHICH ONES ?

"Finally, the "forgery" is no more beyond the technical capability of the time than was the moving and carving of megaliths by ancient humans."

But can you show me ONE reproduction of the Shroud that has the same quality in anatomical details, the 3D information, the superficial image on the linen fibers ?

You claim that it is a technical capability of the time, but we cannot even reproduce one like it today. A major factual problem.

I guess you'll claim that Picknett & Prince and Nickell reproduced one. Once again, just look at their work, they do not reproduce the three elements stated earlier: 3D, anatomic details, superficial image. I am not asking for the same image or all identical details but similar physical property.

It all sounds as if you were saying that we can easily reproduce gold with iron. Just paint it gold and Voila ! It looks the same as gold therefore it is gold ! This is what Nickell and Picknett did: look we have something that resembles the Shroud. But is there some microscopic analyses done ? None whatsoever. And Picknett's method does not reproduce the 3D that we can easily perceived on the Shroud. They are really far off similarities.

"There have been several datings of the shroud, not one, and all point toward a medieval origin. Absolute certainty? Now there is an expression which can muddy the waters, which I am sure you would not want to do.."

You mean that there was one dating done by three laboratories. May I remind that one person saw all data and perform some statistical computation to publish one paper in a non peer-review magazine.

"What "raw data" are you talking about? Do you think there was an academic conspiracy to hide the truth from scholars such as yourself?"

The raw data is the data that were sent for final computation of the range 1260-1390, the data produced by the three laboratories. We don't have the raw data. What so difficult about publishing them ?

And may I remind what is a scientific experiment. It must at least have one quality: reproducibility. If from a scientific paper I cannot reproduce the experiment I cannot conclude it to be scientific. It is at the center of science: experiment must be reproducible for everyone to be able to verify what is stated by peer-review. This is a very basic quality of science and experiment that does not conform to that is no longer scientific.

Would you believe some scientists that proved in their laboratories that gravity is made of proton (!) but that nobody could repeat this experiment to see for themselves ? Is this science ? Of course not. Who ever makes the experiment, reproducibility is at the heart of science (natural science that is).

Why is this so hard to see in this case (1988 dating), that it is not a scientific experiment ? Whoever performed it.

Mario Latendresse

reply: I'm sure you have convinced Mr. Jennings and the rest of the world as well. Then again, maybe not.

28 May 1997

*While your entry on the Shroud of Turin referenced Joe Nickell's excellent book, **Inquest on the Shroud of Turin**, it failed to cite the one central fact in that book that changed this Christian's mind about the shroud; namely, that "negative 3D" images abounded in medieval times, and are commonly know as rubbings.*

In fact, I like to amuse my friends by taking a quarter out of my pocket and, with the aid of a pencil and a

piece of paper, I magically recreate "the Shroud of George Washington."

Spencer W. Hunter

reply: I hope Mr. Latendresse does not see your reply. We may have to rent more space for his rebuttal and the ensuing discourse on *Paintings and Rubbings: which side are you on?*



[shroud of Turin](#)

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reader comments:

Zecharia Sitchin and *The Earth Chronicles*

2 Jul 2001

Since you rely on Rob Hafernik's essay on Zecharia Sitchin's book, THE 12TH PLANET, what is your opinion now that Hafernik has been thoroughly discredited by C.A. Honey in his publications? Hafernik criticized Sitchin by basing conclusions on conventional books written as far back as 1929. Modern discoveries are backing Sitchin right and left and none to date have discredited any thing he said. Do you ever admit you might be wrong on anything. By the way, if you want the criticism of Hafernik's article, I'll be happy to forward you a copy so you can judge for yourself.

VITVAN

reply: C.A. Honey? OK, I'll admit I never heard of him. According to a really reliable source on the [Internet](#) (perhaps VITVAN himself),

C.A. HONEY's present endeavor is to expose the 95% to 98% misinformation and outright hoaxes being fed to the public by both official and unofficial sources. UFO's are physical ships, with humanoid occupants, and have no connection to "other dimensions" or psychic sources. The pseudo-religious wacko cults who claim that "flying saucers" are piloted by "demons" and led by Satan are also exposed. Mediums claiming to be in mental contact are either knowingly or unknowingly spreading falsehood. No exceptions exist. The "greys" are manufactured androids who do most of the manual labor involved in the scientific journey's of those coming to the vicinity of Earth. Just as humans were created to do the manual labor of the Nefilim (as recorded in the book of Genesis in the Bible), so were the greys created to serve the same function during this time period.

Even though I am no longer accepting feedback, letters like VITVAN's still arrive all too often. What is the point in responding? I am half-heartedly considering that maybe there is some truth to these alien stories. I can't believe I am a member of the same species as fellahs like VITVAN and C.A. Honey. Can we all really be brothers? Maybe aliens really did do some reproductive engineering with apes or reptiles. Maybe VITVAN,

Honey, Sitchen, etc. are the spokesmen they've left behind.

Well, as Bob Dylan has said: "I used to care, but things have changed."

11 Dec 2000

I read the article and the follow-up comments. [Gary Gorton](#) made some comments that were factually in error, and I wish to address them.

Mr. Gorton said: New evidence that man was around some 80,000 years longer than women confirms the story of the Anunnaki creating and using us as slaves until Enki came and gave us both knowledge and the ability to procreate.

This is a gross misunderstanding of the "new evidence". This appears to be a great distortion of recent biological findings about the "Mitochondrial Eve" vs earliest human male common ancestor. Mitochondrial Eve premise uses the DNA of the mitochondria in our cells to trace back to the earliest ancestor for all of humanity. This is done by comparing the DNA in mitochondria from a diverse sample of people and looking for the common ancestor. This traces "Eve", the female ancestor, because Mitochondrial DNA is not like the nucleic DNA - it does not recombine during reproduction, and does not take on half the father's genes. Thus it is a direct maternal line. The earliest father ancestor traces the genes in the Y chromosome - the male contributed feature of our genetic identity. It is thus only a feature in men, not women, and therefore cannot apply to women. It looks for the earliest male ancestor that we all share, using some sampling technique. Obviously in both cases it would be impractical to check.

By these techniques, the "Adam" and "Eve" found do not share a common era, but are separated by the 80,000 years mentioned above. However, it is a gross misrepresentation to assume that this "Adam" and this "Eve" were somehow concurrent with each other (via Genesis), and it is also a gross misrepresentation to assume that there were not other women around with the man and other men around with the woman, or that either was the only member of their gender alive at their times.

Mr. Gorton said: The article is also a little dated now as it fails to mention that NASA is now actively seeking Planet X, thought to be beyond Pluto and the cause for Pluto's irregular behaviour.

No. NASA is not looking for a planet X. Pluto is not exhibiting any orbital irregularities indicating the need for another planet. The oddities of Pluto's orbit can be explained by Pluto being a captured cometary body. See <http://www.seds.org/nineplanets/nineplanets/hypo.html#planetx>, the Nine Planets web page discussion of Planet X, and "Nemesis".

Keith Irish

28 Nov 2000

I read with great interest the critique posted on your site about Mr. Sitchin's work. I also read the comments from others who have read it.

The style is pretty stereotypical of a person who will critique anything just for the hell of it. The points made against Mr. Sitchin are wishy-washy and to attack the idea that superior alien visitors did not genetically modify man flies in the face of modern enlightenment. If we can do it now then they sure as hell could have done it then and they did.

New evidence that man was around some 80,000 years longer than women confirms the story of the Anunnaki creating and using us as slaves until Enki came and gave us both knowledge and the ability to procreate.

Even without the Sumerian tablets the OT and other ancient writings are full of symbolisms which looked at in light of modern science and understanding make very possible that Sitchin is right on the money.

As a former believer and long time student of the Old Testament and Antiquities when I read Sitchin's ideas it was as if all I had suspected for many years finally fell into place. I am not for one minute preaching the new way here but will state that I find Sitchin's offering the most plausible explanation to how we came to be here.

The article is also a little dated now as it fails to mention that Nasa is now actively seeking Planet X, thought to be beyond Pluto and the cause for Pluto's irregular behaviour.

I guess the world will always have and need skeptics until Enki himself returns to shove a lightning bolt up their asses.

Oh yes, I forgot the most obvious question. Did Rob Hafernik actually read any of Sitchin's books? My impression is that he did not or at least not recently.

The first step to freedom from religion is accepting that it's OK to die.

Gary Gorton

reply: Gary, your arguments are so elegant and your evidence so overwhelming, I don't know how I have not been persuaded by the commonsensicalness of them.

22 Jul 1999

I read some of your essays. It is easy to attack the person, but where is your contradictory evidence to the ideas? What happened to the scientific method that you espouse? For example, you criticize Zechariah Sitchin as being basically scientifically illiterate, thus ALL his ideas must be absurd. Have you read his work? He is simply trying to correlate ideas from different cultures and he offers a potential explanation. If someone wants to challenge the explanation, let them take it point by point and show that the explanation is in error. Then, let that same person offer a more reasonable explanation.

reply: I never said Sitchin is scientifically illiterate. I said he was a pseudoscientific mythmaker.

By now you have figured out that I have some biases. So do you. It is called perception and perspective. I could claim that NASA science is no better than the science of the Roman Catholic Church of Galileo. And, I might even be able to provide some real evidence or produce people with contradictory evidence. But, nobody would listen to the contradictory evidence, because NASA is always right, and Galileo is wrong. Do you see my point?

reply: No.

Perhaps Sitchin is right?

Are comets really dirty snowballs as NASA claims? Why won't NASA show us the Hubble images of Hale-Bopp? Moon? Where are all the SOHO/LASCO images taken during that same period of time?

reply: If you want images take a look at the [Comet Hale-Bopp Home Page](#) from JPL. Or try <http://oposite.stsci.edu/pubinfo/PR/97/08.html> and <http://oposite.stsci.edu/pubinfo/PR/95/41.html>

I worked for 5 1/2 years at JPL.

I also saw with my own eyes in the JPL image library two of the Face on Mars images. Not long after I saw them, they became unavailable. Go talk to an Intel analyst sometime.

Neal

reply: I'll do that, Neal. Thanks for the tip.

09 Feb 1999

Being a sceptic myself, I am interested in finding contradictions in the Zecharia Sitchin explanations of our past, which would have put to an end the discussions originated by Sitchin. Unfortunately, if anything can be called pseudo-science, that's your writings. I tried to find in them a single provable fact, and failed. Your rudeness reminds me of V.I.Lenin's pseudo-philosophical musings, where his only style of discussion was calling his opponents names, instead of confronting them with logic. I would not have replied to your writings, if you kept them for yourself, but you perform a great disservice to people who are really interested in finding the truth.

Yury Girshovich, Ph.D.

reply: Thank you for the kind words of encouragement, Yury. I've never been compared to Lenin before. It could be worse: you could have called me Stalin's son. Anyway, if you really are interested in writings which "contradict" Sitchin's claims, I suggest you take a look at the items I list under "further reading." As I say in my introduction to the *Skeptic's Dictionary*, I am not going to repeat all the arguments against non-sense that others have made, but I will provide references to the best skeptical literature I know of. Such notions as that beings from another planet (Niburu, which orbits our Sun every 3,600 years) arrived on Earth some 450,000 years ago and created humans by genetically engineering female apes have been adequately handled by others.

Still, there are two things that should be cleared up. When you go to an auto parts store, don't complain when they don't serve ice cream. If my purpose was to provide full arguments for and against each of the topics I took up, then your criticisms might carry some weight. But it isn't, so they don't. Secondly, when someone claims that human evolution did not occur naturally over several millions of years (as the current evidence now suggests) but rather in a burst some 450,000 years ago as a result of genetic engineering on apes (yet these space engineers left no other evidence of their presence), the burden of proof is not on those who reject such notions, but on the one who proposes them. There is no intellectual duty to attempt to disprove ideas which contradict current scientific knowledge. If a revolutionary idea is backed with evidence and arguments, rather than speculations and assumptions, then there is a duty to examine the evidence and the arguments. Thus, however interesting Sitchin is, to take him seriously one would have to reject everything we know about evolutionary biology, as well as what we know about the formation of our solar system. Scientists will do that only if given adequate reason to do so. Telling a compelling story which assumes ancient myths are scientific truths does not count as an adequate reason.



[Sitchin](#)

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sixth sense

The sixth sense is a term sometimes used to refer to [psychic](#) abilities such as [channeling](#) or [hearing the dead talk](#), [ESP](#) ([telepathy](#), [clairvoyance](#) or [precognition](#)) or [telekinesis](#).

[Intuitives](#) think they possess this so-called sixth sense.

further reading

[reader comments](#)

- [Sharks have the sixth sense!](#)

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Last updated 12/30/01

 [Zecharia Sitchin](#)

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reader comments:

sixth sense

5 Dec 2000

I always find it amusing when someone uses the term "Sixth Sense" to refer to some sort of paranormal ability.

Because although it's standard practice to refer to the "five human senses", the truth is that we have more than five senses. In addition to sight, smell, taste, touch, and hearing, we also have the sense of Stasis (balance) and Kinesthesia (the deep sense of muscle/joint movement-- the sense that allows us to coordinate our muscles when we walk, talk, and use our hands).

So I guess that when people talk about the "Sixth Sense", they really mean the Eighth Sense?

Tony Fabris

reply: It's too bad we don't have a natural sense for detecting non-sense.



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reader comments:

philosophical skepticism

12 Aug 2000

Using your arguments challenging many of the subjects covered by your website, I believe it is possible to cast doubt on the possibility of the existence of humans.

I mean, how could any thinking entity believe that a planet just the right distance from the sun, spinning at just the right speed, tilted at just the right angle could support life. It's preposterous I tell you! Furthermore, the idea that plankton floating in salty brine could end up reading e-mail is really bizarre. And what is a "thought" anyway? You can't see it. You can't measure it or take its' temperature. I don't believe "thoughts" exist. What do you think?

dboothe

reply: I think you have lost your senses and are out of your mind.

9 Aug 2000

In doing research on various skeptic martyrs on the net and elsewhere, I have noticed that their personal education is often nowhere near what would be required to make a reliable, let alone educated, opinion on a subject. For example, your site covers everything from Bigfoot to Egypt to Abductions. A hefty load, requiring a hefty knowledge base to back it up. But quite frankly, philosophy just doesn't cut it. After all, my brother also has gone the philosophy route because he found he could not pass anything else.

It should be perfectly obvious, the pro-bigfoot people are usually anthropologists while the pro-alien/Egypt people are geologists/Egyptologists and so on. No Egyptologist seems to think it's appropriate to wager an opinion on Bigfoot, and by the same obvious deduction, no anthropologist ever wagers an opinion on Egypt. Nor should they, for it's not in their area, and THEY at least know enough to not spout off about what they know nothing about. I already know this falls on deaf ears, enough naked anger leaks through your comments to let anyone realize you can't be bothered with those who prove you wrong. Not posting any of the letters I've sent where I've very effectively nailed you to the wall for your factual errors is a dead give-away. But if you have ANY respect at all for an informed analysis, here's one::: Your site suggests that you DO know enough about a 100 different fields of discipline to comment on all of

them, despite the fact that such knowledge would amount to several if not dozens of PhDs.

There's your delusion, if you are really looking for one. Learn well.

Bern Finnigan

reply: Tell me, Bern, what kind of Ph.D. does one need to write such a letter? What field is it that justifies the claim that the "personal education" required for "reliable...educated" opinion on a subject is professional degreed education? Did you learn this from your brother?

I don't doubt that to you it is "perfectly obvious, the pro-bigfoot people are usually anthropologists while the pro-alien/Egypt people are geologists/Egyptologists and so on." It is also false. Real anthropologists won't bother themselves with distractions like Bigfoot, and real Egyptologists find [pyramidiocy](#) ludicrously irrelevant.

I don't question your powers of deduction, Bern. But your assumptions are asinine as well as false. I shudder to think that you might have learned such things at school. "No Egyptologist seems to think it's appropriate to wager an opinion on Bigfoot," you say. That may be true, but not for the reason you assume. They don't wager opinions on Bigfoot because they probably have no interest in Bigfoot. Egyptologists don't make claims in nuclear physics because it is not their field, but if they don't make claims about Bigfoot or God, it is not because only appropriate experts should make such claims.

Another assumption you seem to make is that a person can't gain knowledge or reasoning ability by reading or studying a subject outside of an academic or professional environment. Bern, let me tell you something: you don't need to have a Ph.D. in philosophy to make intelligent claims about what is ethical or not. You don't need to be a Ph.D. in Egyptology to make intelligent claims about aliens breeding with ancient peoples and teaching them to build pyramids as radio towers or water pumps.

People like you don't make me angry, Bern. You irritate me with your pompous attitude and you remind me that what I do often falls on deaf ears for reasons beyond my control. I don't recall any of your previous letters, but I usually ignore long, rambling letters that have no specific criticism and I ignore letters I don't think would benefit anyone either by their content or by my response. Now, perhaps you have "nailed me to the wall" as you say, but I am sure there was some good reason why I was unable to appreciate the brilliance and insight you must have shown. It was probably because I only have one Ph.D. and it isn't in the appropriate field.

In conclusion, I wonder if you could help me and my readers out by informing us what kind of expert would be appropriate to comment

intelligently on the following claims by [Michael Menkin](#)?

This request references reports of alien abductions as reported by Bud Hopkins, David Jacobs and Raymond Fowler. I made a device which may help people abducted by aliens as reported by the above investigators. The device works by blocking alien telepathy and mind control, I call my device a "thought screen helmet." My device consists of a leather helmet lined with layers of special conductive plastic, the same material used to prevent static electricity damage to printed circuit boards. When worn over the head, I believe the device may insulate an abductee from alien telepathic control. Its function is not proven, I realize, but a shield for blocking alien telepathic control is worth trying.

To date I have one abductee trying my device. He has not had any memorable alien contact for three months so the device may work. I am still working with this person and hope to confirm its operation. I am trying to get other abductees to try the device to confirm its operation. My "thought screen helmet" cannot be tested in a laboratory. The only way to test it is for an abductee to wear it for a period of time and determine if the telepathic control of aliens is blocked or neutralized. If the "thought screen helmet" works it will minimize alien activity with a person and allow that person to resist aliens.

If I cannot verify the function of my current "thought screen helmet" configuration, I plan to test different materials to find one that does work. If your organization can put me in contact with the kind of abductee described by Jacobs and Hopkins who is interested in trying the device, I will mail it to them for free, worldwide. There are no catches. It's available to any serious abductee who wants to test if for free, anywhere in the world. Several size "thought screen helmets" are available.*

My guess is that the appropriate expert would be your local hardware store manager, but I could be wrong.

reader comments

10 Aug 2000

Your local hardware store manager is unlikely to be a highly degreed person, so I have to disagree that he/she would be an appropriate expert to comment on the hat. Having seen picture of the hat at Michael Menkin's site, I think that a comment by a

fashion designer would be more appropriate.

Or since the idea for the hat originated from a Science Fiction novel, perhaps the "Aids is a Conspiracy" Science Fiction author James Hogan would be appropriate.

Tim B

13 Aug 2000

Actually, you do not need to go the high-tech (and no doubt expensive) route that Mr. Menkin has in order to shield your mind from alien influences.

Minor league baseball caps serve the same purpose. I have a small collection of them, and I wear them often. I am able to state that I have never been under any sort of alien mind control while wearing such a cap.

I don't know if major league caps perform the same function. Next time I go to a game I'll buy one and see if I notice any alien influences.

Alex Bensky

13 Aug 2000

Regarding Bern F's quip of 9 Aug 2000, in which he states:

"In doing research on various skeptic martyrs on the net and elsewhere, I have noticed that their personal education is often nowhere near what would be required to make a reliable, let alone educated, opinion on a subject."

When - if ever - have institutions of "higher education" held a monopoly on knowledge? As someone who considers myself self-educated and generally quite knowledgeable on many subjects, I must respond; how arrogant! Look, you either agree or disagree. There's no need to insult, or attempt to belittle . . . or to bore for that matter. Make your point and get on [over] with it.

Dennis G

Bern Finnigan replies:

14 Aug 2000

Another commonality between all skeptic messiahs I have researched is their LACK of research towards contrary views. Such skeptical talking heads on any number of paranormal television shows can have their entire thought process summed up with: "My opponent has expert testimony, but I have a quippy one-liner, therefore I'm right. Oh, I have a life too."

The sole exception would be Carl Sagan, who in his book "Broca's Brain" dedicated no less than 56 pages to a dissection of the "aliens and Moses" hypothesis of Dr. Velikosky, wherein Dr. Sagan used natural laws of physics, chemistry and mathematics to demonstrate the impossibility of the unusual ideas. Such a qualified disproof, is of course, the exception in your chosen hobby.

*Sticking with the example of [Bigfoot](#) (as we both live in his alleged stomping ground, pun intended), you said the utterly misinformed statement: "Real anthropologists won't bother themselves with distractions like Bigfoot." The conceit and lack of objectivity here is obvious. I can't help but wonder the criteria that a philosophy PhD sees fit to impose on a field that has nothing to do with philosophy. Heaven forbid letting anthropologists be autonomous in their own field. I suppose by "Real" you mean "agrees with me", and I'll let the ridiculousness of that speak for itself. Regardless, you're wrong. Anthropologist Dr. [Grover Krantz](#) PhD. of Washington State University has been studying the phenomenon since the sixties, and I do believe he qualifies as "real": tenured position, teaches graduate level courses, publishes papers including a few books. Sound good? Except he has the audacity to actually explore the situation before making a irrational proclamation based on the statue quo. He publishes articles on his findings based on the known rules of anatomy and primate locomotion and other silly new-age fantasies. His finest achievement: a book where he discusses all known evidence and subjects it all to scientific rules, AND I might add, without a single one of those pesky unreliable testimonials. (Big Footprints, look for it on Amazon). **[The title has been changed to [Bigfoot Sasquatch : Evidence](#)]** He makes a case for the creature using the available physical evidence (footprints) and the best film of the alleged creature, the 1967 Patterson footage. He puts them all to the test of known rules of vertebrates that supposedly all earthly creatures must obey no matter how hairy they are: skeletal anatomy, weight distribution, muscular formation, etc. He should be quite qualified, after all that's his job to know those things, and that's what he has been teaching for 30 years. He concluded that the 1967 creature could not have possibly been a man in a suit. His book is full of all of his mathematical calculations and rational deductions that anybody can double-check to their hearts content. He concealed nothing. So, if Dr. Krantz says its a real monster by using mathematics, if anyone has a complaint with him the logical recourse would be to counter him by using mathematics.*

Unfortunately, just saying "It looks fake to me" comes in a distant second in the reliability department, and is an insult to the accepted procedure of the scientific method. If you do not accept the findings of a professional merely because he supports the creature, and then you deserve to be irritated, and even a PhD. in basket weaving should recognize the validity of the scientific method over a layman knee-jerk reaction.

Now for completeness sake, I will tell you where you can find monster-maker

John Chambers directly quoted denial that he had nothing to do with the Patterson monster: The Fortean Times, issue of February 1998, pg 48.

That will make it the 3rd time I've sent you that information. If you want to believe the movie was a fake SO badly, give me your address and I'll send you a copy of the whole article. My pleasure.

Bern Finnigan

reply: Well, Bern, I guess this is where you think you have "nailed me to the wall" with your evidence and arguments. I'm afraid you're not very convincing, however. I can't deny that Krantz has a Ph.D. and teaches anthropology at Washington State any more than I could deny that alien abduction advocate John Mack is an M.D. and a psychiatrist who teaches at Harvard. I don't think you should deny, however, that both are considered quite odd by their colleagues. Be that as it may. Krantz is considered heroic by some because he did what many would have thought was professional suicide when he devoted his scholarly talents to investigating Bigfoot. He is still the odd man out, regardless of his credentials. You will not find mainstream anthropology textbooks or classes that take seriously the study of Bigfoot, just as you will not find standard texts in psychiatry giving advice on how to treat patients who have been abducted by aliens. (I don't doubt that you can find a book or a teacher that takes seriously just about every topic I've debunked.) I've never met Krantz, but he has some odd ideas. For example, according to the [Fortean Times](#), Dr. Krantz advocates a hunt-and-kill-a-Bigfoot mission. Now, I'll say that's true scientific devotion, a willingness to kill in the name of finding the truth. I only bring this up because I have a hunch that if Bigfoot exists, the creature would qualify for listing as an endangered species.

What would you do, Bern, if someone pointed out to you another Ph.D. in anthropology who thinks Krantz, while building a strong but selective case, has failed to prove his point? Krantz, by the way, is not an expert on films as far as I know. I thought you required that nobody speak outside of their own field of expertise? By the way, how do you know this? Is it common sense? Do you have a Ph.D. in common sense, Bern? (You know, the only reason common sense is so common is because it often doesn't make much sense.)

Do you really accept Krantz's response that Bigfoot is "shy and nocturnal" to typical criticisms, such as those below from my entry on Bigfoot?

There are no bones, no scat, no artifacts, no dead bodies, no mothers with babies, no adolescents, no explanation for how a species likely to be communal has never been seen in family or group activity, no evidence that any individual, much less a

community of such creatures, dwells anywhere near all the "sightings," etc.

This shy and nocturnal animal has been spotted in broad daylight hundreds of times, if the testimonials are to be believed. Are the creatures so shy that they pick up their scat and hide it? Does the community live underground or in caves no human has ever found? Maybe they live in the [Hollow Earth](#)? (Oops, sorry. I forgot that you don't like one-liners or quips. They help me keep my sanity when dealing with humorless doubledigits.) Not one baby or adolescent spotted in all these years? No evidence of habitation? What are the mathematical probabilities of such a species surviving for hundreds of thousands of years without a single shred of direct physical evidence?

Finally, the issue regarding costume-maker Chambers is a side issue I've [addressed before](#).

22 Jan 1999

You might be interested in my site [The Anti-Skeptic Site]

www.mysite.com/don/antiskeptic.htm

Gordon Cohen

reply: I have looked at your site and read some of the entries. However, I don't see what any of it has to do with skepticism or Skepticism (see my entry on the topic for the distinction <[philosophical Skepticism](#)>.

The members of your first group of "skeptics" (people who made bad military decisions) seem to share in common only two things: they were close-minded and their preconceptions turned out to be wrong. If one defines a skeptic as one who is closedminded and turns out to be wrong, then examples of skeptics and non-skeptics will fill up a very long list, indeed. Neville Chamberlain, for example, is one I would characterize as gullible and guided by wishful thinking. To call Chamberlain a skeptic seems silly.

Your medical mistakes list seems also to be a list of people who share these same two characteristics of being hidebound and wrong. Again, one could find both skeptics and non-skeptics to add to this list.

You head your page with the following "The web has plentiful sites by skeptics - people who try and critically analyze the mass of nonsense loose in our society. Skeptics usually find themselves in the position of saying something is not true - that there is not enough evidence for something."

By defining skeptics in this way, you make everyone a skeptic who has

analyzed an issue, taken a position against that issue on the grounds that there is not enough evidence to support it, and then turned out to be wrong. Such a broad definition would include many strange bedfellows in its denotation. You are, of course, free to use words any way you see fit, but I wonder about the utility of defining 'skeptic' in a way that would include Richard Nixon and George Patton and Joan of Arc.

Mr. Cohen replies:

I will change the title of my website, perhaps to "The anti-Closed Mind" Website.

Gordon

09 Nov 1998

Thanks for providing the Skeptic's Dictionary, which is almost unique on the Web in being interesting, well-judged, well written and well researched...I just wanted to raise a couple of issues concerning your account of Philosophical skepticism and your alignment of yourself within that movement I'll be as concise as I can.

You say (I think!) that modern skeptics, by and large, accept that certain knowledge is impossible (at least outside the fields of logic and mathematics) but accept that empirical or sensory evidence can confer some degree of probability, or confirmation, on theoretical claims; and that the distinguishing quality of a contemporary skeptic is a sort of healthy refusal to believe theoretical claims unless supported in this way by properly conducted empirical tests, coupled with an unwillingness ever to regard such claims as finally decided for once and for all.

reply: No, I say that one tradition of philosophical skepticism has defended probabilism and the tentative nature of empirical knowledge. This distinction is a very old one. Accepting probabilism does not make one "modern" in any sense of the word.

It seems to me that this, while probably a position which is extremely and justifiably common among 20th century philosophers and scientists, is not a skeptical one, since it is actually called into question by some of the most important skeptical arguments. The point of Hume's skepticism about induction, for instance, is not merely that it demolishes claims to dogmatic certainty, but that it calls into question our right to claim that any amount of empirical data makes any theoretical claim any more probable than its contrary. Similarly, Descartes' "evil demon" argument, if it works, shows that sense data (appearances) is consistent both with our ordinary scientific world-view and with a completely different set of theoretical claims about the way the world is, and cannot therefore provide any evidence, even of a probabilistic nature,

either way.

reply: Hume's skepticism is very complex, but generally he is sympathetic to probabilism. He rejects metaphysics as a waste of time, but not math and science. He certainly does not advocate the notion that one scientific theory is always as good as any other. Descartes, on the other hand, had no interest in probabilism. Philosophical rationalists demand absolute certainty. I take it you do not think Descartes disposed of the Evil Demon hypothesis adequately. Metaphysical possibilities, such as that we are all dreaming or that we are all atoms in a universal being or that we are all being constantly deceived about fundamental matters of perception and mathematics by an Evil Demon are not denied by skeptics. Descartes was not a skeptic, so I don't know what your point in noting that he believed that if the Evil Demon hypothesis were not disposed of then any empirical theory would be as good as any other.

The view that the scientific or empirical method is the only trustworthy one, and that while it cannot yield certainty it can confer probability on theoretical claims, seems to me not to be a skeptical one, but closer to what has traditionally been called "pragmatism" or "fallibilism" (in which I would include, for instance, the views of philosophers such as Dewey, most Bayesians, and many modern philosophers of science). Unless accompanied by a satisfactory refutation of Humean and Cartesian skepticism, it remains a dogmatic view. To me at least, the most valuable 20th century work in the philosophy of science has been done by those philosophers (such as Popper and, in particular, Quine) who accept the correctness of Hume's argument but try nonetheless to come up with an account of why it is rational to pursue scientific, empirical inquiry. In the absence of a plausible refutation of Hume, the idea of constructing a philosophy of science which makes no appeal to any positive concept of confirmation or justification seems like the natural way to develop, since Hume's argument appears to undermine these concepts fatally. It might, therefore, be appropriate to call Quine and Popper skeptics, since both deny that empirical evidence can ever confirm a theoretical claim. The view that empirical data can confer any non-zero degree of probability on a hypothesis, by contrast, strikes me as quite anti-skeptical, since most skeptical arguments are just as effective against claims to have even weak confirmation of a hypothesis as they are against claims to certainty. skeptical doubts apply equally to scientific claims and to the claims of New Age therapists, proponents of the paranormal etc. The difference is that there are, as your site ably demonstrates, additional reasons to doubt the latter - you don't have to be a skeptic, in any traditional philosophical sense.

Hope that all sounded coherent.

Sam Inglis

U.K.

reply: It's coherent, but wrong. Popper does not say that no empirical evidence can ever confirm a theoretical claim. He says that no amount of

confirmation of an empirical theory can prove the theory is true. He also used 'probability' in a mathematical sense when he claims that all scientific theories have zero probability (because no matter how many tests have been done, there are an infinite number left to do and any number divided by infinity equals zero). The ancient (and modern) skeptics who defend probabilism are not talking about mathematical probability. They are using the term in much the same way I would use it when I say "I probably left my notebook in the office." They are not using it in the sense of "the probability of a heads coming up on any given coin flip is 1 in 2."



[skepticism](#)

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reader comments:

31 Aug 2002

Thank you for your entry on sleep paralysis - the description of this phenomenon exactly parallels an experience I had as a youth, in which I seemed to be unable to move in my bed, yet was "aware" somehow of an evil, buzzing entity in the corner of the room. I've been an agnostic for most of my life, and have never taken this memory at face value, but it's nice to know that other people have had the same experience. I can easily see how someone who already believed in demons, ghosts or aliens could assume he'd been visited. Could you add more to your entry regarding the experiments I saw on a science program ([Nova?](#)) in which it was claimed that this state could be induced?

By the way, your website shows an interest in Celtic music. You should point this out when asked how a skeptic can possibly enjoy life. How can one NOT enjoy a life in which one can listen to beauty?

Bryan Haught



[sleep paralysis](#)



Slick 50 and other engine oil additives

Slick 50 and other engine oil additives supposedly reduce engine wear and increase fuel efficiency.

You may have heard the commercial or seen the ad:

Multiple tests by independent laboratories have shown that when properly applied to an automotive engine, *Slick 50 Engine Formula* reduces wear on engine parts. Test results have shown that Slick 50 treated engines sustained 50 percent less wear than test engines run with premium motor oil alone.

There are about 50 other products on the market which make similar claims, many of them being just duplicate products under different names from the same company. The price for a pint or quart of these engine oil additives runs from a few dollars to more than \$20. Do these products do any good? Not much. Do they do any harm. Sometimes.

What's in these miracle lubricants, anyway? If they're so wonderful, why don't car manufacturers recommend their usage? Why don't oil companies get into the additive business? Where are these studies mentioned by Petrolon (Slick 50)? Probably in the same file cabinet as the tobacco company studies proving the health benefits of smoking.

The basic ingredient is the same in most of these additives: 50 weight engine oil with standard additives. The magic ingredient in Slick 50, Liquid Ring, Microlon, Matrix, QM1 and T-Plus from K-Mart is Polytetrafluoroethylene. Don't try to pronounce it: call it PTFE. But don't call it *Teflon*, which is what it is, because that is a registered trademark. Dupont, who invented Teflon, claims that "Teflon is not useful as an ingredient in oil additives or oils used for internal combustion engines." But what do they know? They haven't seen the secret studies done by Petrolon (Slick 50).

PTFE is a solid which is added to engine oil and coats the moving parts of the engine.

However, such solids seem even more inclined to coat non-moving parts, like oil passages and filters. After all, if it can build up under the pressures and friction exerted on a cylinder wall, then it stands to reason it should build up even better in places with low pressures and virtually no friction.

This conclusion seems to be borne out by tests on oil

additives containing PTFE conducted by the NASA Lewis Research Center, which said in their report, "In the types of bearing surface contact we have looked at, we have seen no benefit. In some cases we have seen detrimental effect. The solids in the oil tend to accumulate at inlets and act as a dam, which simply blocks the oil from entering. Instead of helping, it is actually depriving parts of lubricant" (Rau).

In defense of Slick 50, tests done on a Chevy 6 cylinder engine by the University of Utah Engineering Experiment Station found that after treatment with the PTFE additive the test engine's friction was reduced by 13.1 percent, the output horsepower increased from 5.3 percent to 8.1 percent, and fuel economy improved as well. Unfortunately, the same tests concluded that "There was a pressure drop across the oil filter resulting from possible clogging of small passageways." Oil analysis showed that iron contamination doubled after the treatment, indicating that engine wear increased (Rau).

the FTC and Slick 50

In 1997, three subsidiaries of Quaker State Corp. (the makers of Slick 50) settled Federal Trade Commission charges that ads for Quaker State's Slick 50 Engine Treatment were false and unsubstantiated. According to the FTC complaint, claims such as the following made in Slick 50 ads falsely represented that without Slick 50, auto engines generally have little or no protection from wear at start-up and commonly experience premature failure caused by wear:

"Every time you cold start your car without Slick 50 protection, metal grinds against metal in your engine."

"With each turn of the ignition you do unseen damage, because at cold start-up most of the oil is down in the pan. But Slick 50's unique chemistry bonds to engine parts. It reduces wear up to 50% for 50,000 miles."

"What makes Slick 50 Automotive Engine Formula different is an advanced chemical support package designed to bond a specially activated PTFE to the metal in your engine."

In fact, the FTC said, "most automobile engines are adequately protected from wear at start-up when they use motor oil as recommended in the owner's manual. Moreover, it is uncommon for engines to experience premature failure caused by wear, whether they have been treated with Slick 50 or not."

zinc: good for the common cold & your car's engine

Another type of additive is **zinc dialkyldithiophosphate**. Zinc-d is found in Mechanics Brand Engine Tune Up, K Mart Super Oil Treatment, and STP Engine Treatment With XEP2, among others. The touting of zinc-d as a special ingredient in engine oil additives is a little like the Shell ads which touted "Platformate." (Most gasoline has similar additives but under different names.) Zinc-d is an additive in most, if not all, major oil brands. The wonder oils just put more of the stuff in a 50 weight engine oil. It would be useful if your engine were ever operated under extremely abnormal conditions where metal contacts metal: "the zinc compounds react with the metal to prevent scuffing, particularly between cylinder bores and piston rings....unless you plan on spending a couple of hours dragging your knee at Laguna Seca, adding extra zinc compounds to your oil is usually a waste.... Also, keep in mind that high zinc content can lead to deposit formation on your valves, and spark plug fouling" (Rau).

If zinc-d is so good for your engine, why haven't oil manufacturers been putting more of it in their standard mix of oil and additives? Actually, oil companies have been *decreasing* the amount of zinc-d because the evidence indicates that zinc-d causes deterioration of catalytic converters.

The bottom line is that outside of the [testimonials](#) of happy and satisfied customers and the guarantees of company executives about the wonderful effects that studies have shown will follow the use of their products, there isn't much support for using oil additives. Of course, there are those millions of customers who buy the stuff: aren't they proof that these things really work? Not really. They're proof that this stuff really sells!

cleansed, not coated

On the other side of the engine block are those additives which will cleanse your engine, not coat it. Stuff like Bardahl, Rislone and Marvel Mystery Oil claim they can make your engine run quieter and smoother, and reduce oil burning. These are products which contain solvents or detergents such as kerosene, naphthalene, xylene, acetone or isopropanol. If used properly, I suppose these products will strip off your Teflon and zinc protective coatings! But unless you have a really old and abused car, you probably have no need of stripping away sludge and deposits from your engine. Thus, you probably have no need for these wonder cleaners. If you overuse such products you can damage your engine by promoting metal to metal contact.

If you use a synthetic oil, such as Mobil 1, you are advised not to use any engine treatments or additives. [Mobil claims](#) that

The use of an engine oil additive is not recommended, either by Mobil or by virtually any vehicle manufacturer. In fact, it may void your new-car warranty.

Finally, you may have seen the commercial where two engines are allowed to run without any oil in them and the one which had the special oil additive keeps on ticking after the other engine has conked out. This may be appealing to the car owner who never changes his or her oil or who runs his or her car without oil, but it should be of little interest to the person who knows how to take care of their automobile.

Should you invest in something like [Tufoil](#)? It is touted as being "a super-suspension of micro-miniature PTFE particles and soluble Molybdenum, permanently suspended in oil." And, it will not clog filters or oil openings, according to the manufacturer. Or, how about Lubrilon, which contain a nylon polymer that will coat your metal parts? Or Bishop's Original Permafused Lubrication™, which also coats your metal parts with an anti-wear lubricant film? It's your money, but I think you'd be better off if you just changed your oil and oil filter regularly. And don't forget to change the fuel and air filters at the recommended intervals. We can't say for sure that these new products do no good, but what good they might do is probably not necessary or of much value for the average vehicle owner who takes proper care of the vehicle.

further reading

[reader comments](#)

- ["Snake Oil! Is That Additive Really A Negative?"](#) Fred Rau, *Road Rider*, August 1992.
- [Consumer Reports tests Prolong](#)
- [QUAKER STATE ADS FOR SLICK 50 ARE FALSE AND MISLEADING, FTC CHARGES](#) July 16, 1996 FTC press release
- [QUAKER STATE SUBSIDIARIES SETTLE FTC CHARGES AGAINST SLICK 50](#)
Agreement Safeguards \$10 Million in Redress to Consumers July 23, 1997 FTC press release
- [Car Talk with Tom and Ray](#)
- [Super21 Fuel Additive](#) by Rob Altenburg

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Last updated 12/31/01



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reader comments:

slick 50 and other engine oil additives

25 Dec 2002

Many years ago Slick-50 changed formulations without telling their customers (they fell out with their suppliers). Yet they continued using tests of the original formulation in their advertising until relatively recently. It is the cut-off between the original and the new Slick-50 that defines the good and the indifferent tests. The original formulation stood up to testing. Magazines including the Consumers Digest recognised that it worked. In recent testing Consumers Digest gave Slick-50 the thumbs down. However they were not testing the same product they had in the past. I hope they redo the tests with the original formulation.

The original Slick-50 formulation is now being sold as [Xcelplus](#). It is this original formulation that had all the impressive testing done to it. Xcelplus have quite extensive and interesting documentation on their site verifying this. Some of the material includes Supreme Court findings and legal documents. Slick-50 have now taken all the tests referring to the original formula out of their advertising material. Unfortunately most people still don't know the tale of the two formulations. This is creating a lot of confusion as they're not comparing apples and apples. Now we know why original testing showed up different results to more recent testing.

Links to your site were instrumental in sorting this out. BTW: The original formulation contains no Teflon.

Michael Czajka

PS. It's me you're quoting extensively on your web site so it would be nice to put up this clarification.

15 Sep 2000

Wow, I didn't expect so many defenders of these additives to appear. I do have some insight to the testing, if you don't already have it.

I am a Society of Tribologists and Lubricatin Engineers Certified Lubrication Specialist. I worked until February 1998 at a well respected independent petroleum analysis laboratory in Vallejo, CA.

The 3 published test papers related to Slick 50 are available from the Society of Automotive Engineers, and, as part of a project evaluating Slick 50, DuraLube,

and other additives, I ordered copies of the three (I would give you the six digit numbers, but I do not recall them. They were referenced in an article by Petrolon in "Lubrication Engineering", the STLE magazine). What it boils down to- they are very turgid- is the four ball test results (ASTM D2272, IIRC) performed by (IIRC, again) Southwest Research in San Antonio, TX.

The test results did not seem to be that different to me. But what really makes me laugh is that the four ball test bears little relation to what happens in an engine.

Three steel balls are fixed in a triangle in a cup. The fourth ball is placed in a chuck at the end of a vertical shaft, set against the three fixed balls to a set loading, and spun. The resulting wear scars are measured for area. The cup is generally filled with the candidate lubricant.

The major difference? The relative sliding motion is in a constant direction, temperature, and force. This simplifies the hydrodynamics greatly. In an engine, this is not the case. The PTFE particles can not be counted on to lay flat against a surface (don't get me started on the "coating"). In fact, if they are caught more perpendicular to a surface, they can cause damage just like any hard contaminant.

Most of the non-PTFE additives were either just higher viscosity or contained high amounts of chlorinated anti-wear additives. These additives do work- but so do the ones already in motor oil- but they should not be used here because of chemical reactions which form corrosives. Nitric, carbonic and sulfuric (in diesel) acids are problem enough, why add hydrochloric?

John H.

reply: Maybe the users want to make sure their cars gets all the food groups for a well-balanced diet?

28 Nov 1999

Consumer Reports did an oil test on 60(?) New York taxi cabs. What they did was strip the engines down every 6000 miles and measured wear, etc. Anyway, all oils are basically the same with synthetic showing slightly less wear. AND, two oil additives, similar to Slick 50 if not the same, showed a propensity to cause more wear.

Well, I would not normally bother someone with this fact, but, you seem to have a bunch of flakes out there who believe in snake oil. Now, you can have a reference done through an independent study.

George

reply: I haven't seen that issue, but [Consumer Reports](#) said in 1996 that

"anyone using one of today's high-quality motor oils shouldn't need an additional engine or oil treatment. We reached that conclusion in our July 1996 report on motor oils after we tested Slick 50 Engine Formula and STP Oil Treatment in New York City taxis." [Consumer Reports](#) also once tried to duplicate the Prolong commercial but burned up the engine.

4 Nov 1999

Slick 50 is not like synthetic motor oil as some of the recent letters may lead one to believe.

There are no proven studies on the efficacy of adding TEFLON - which Slick 50 is - to the oil.

Synthetic oils have been proven to such a degree and are considered so superior in resisting heat breakdown that federal law allows only synthetic lubricants in jet engines - ask any Airframe and Powerplant (FAA certification) mechanic...

AND there are studies showing the reduced wear on engine components when synthetic lubricants are used - the FAA has that, too...

Comments also alluded to "...increasing oil change frequency..." when using synthetic oil. Wrong again. Even the manufacturers recommend filtering and re-using of synthetic oils in automotive applications. In fact, synthetic oil used in cars can be filtered/re-used many times.

Chris Long

31 Oct 1999

Having used slick 50 for about 15 years and through over 20 vehicles I feel well qualified to say "It works".

reply: My mother went through 20 rosaries over 70 years and she was sure her prayers worked, too, but I have my doubts.

However when starting out I wasn't so sure so I did oil analysis (yes metal wear decreased significantly). I also continue to use magnetic sump plugs so that I can see how much visible ferrous metal comes out of my engines each time I change my oil.

reply: Doesn't everybody?

Over the years I have also noted mileage improvements (usually around 10%): I keep log books.

reply: You keep log books, but do you do [controlled studies](#)? What is the 10% compared to? Do you run half your vehicles with Slick and half without? What do you use for comparison? My mother thought she had a high success rate with her prayers but she never kept track of the unanswered ones, or she just figured God decided they weren't worthy of being granted. Either way, she was satisfied.

Other improvements include decreased temperature: very noticeable on air cooled motorbikes or by noting the position of your temperature gauge before and after.

Decreased noise (sometimes the difference is huge).

reply: Are these validations based on subjective experience? If so, there is the danger of [self-deception](#).

I agree that Slick-50 sometimes exaggerate the perils of not using their product.

reply: So did the [FTC](#) when they when they got Quaker State Corporation (which makes Slick 50) to pay \$10 million and agree to quit making false and unsubstantiated claims.

However I figure that if my engine gets up to 50% less wear I get up to 100% more life out of it. This is particularly relevant to the air cooled 4 stroke motorbikes I favour. I have accumulated over 500,000 Kms (300,000 miles) with slick and motorbikes and more in cars. I have also had a few engines lose all their oil with no damage (often after running many miles dry).

reply: That's good figuring but that's a big "if". By the way, for a guy who is so meticulous about keeping records on his oil, you don't show much care for your vehicles if you let them run dry.

I accept that sometimes slick-50 may not be at its optimal level after 50,000Kms but in my experience even if it has slightly worn away it is still working. As my air cooled motorbikes run so hot and the gears run in the engine oil whipping it to premature failure I'm not surprised Slick wears out quickly. I just add about 10ml of slick with my oil changes to keep the coating 100% all the time. However in cars this is not necessary and one treatment does genuinely appear to last well past 50,000 Kms.

And the cost...? Well if I get a 10% improvement in economy it takes me about \$500 of fuel to pay for the treatment. I do this in about 1/2 a year. This totally discounts the savings in repairs that I might otherwise have to make. Say I only get 5%... then it would take a year. What about 0%? Well I still get the power and decreased repair bills. How can I lose?

reply: Even if your "if" isn't actual, everything's still satisfactual.

I've seen the booklets Slick put out. They contain either full reports or excerpts. I know they're correct because I have sourced a few direct from the testing organisations concerned. One of the best ones is the Consumers Association report, quite a few years back, which stated it was the only product they could find that did work (I sourced that one direct too).

Enough proof? No? Well try it... I did and that's what really sold me.

Michael Czajka <slick@rabbit.com.au>

reply: I don't usually print e-mail addresses, but I couldn't help but notice the name you go by. You are one devoted person.

1 Nov 1999

Michael Czajka says in support of Slick 50:

Other improvements include decreased temperature: very noticeable on air cooled motorbikes or by noting the position of your temperature gauge before and after.

This is not possible on a typical car engine, whose coolant temperature is controlled by a thermostat. Assuming the cooling system can keep up with the rate of heat production of the engine (i.e., assuming there isn't something grossly wrong like no coolant), the temperature gauge will remain fixed whether or not Slick 50 has been added.

Czajka's stated improvement of 10% in fuel economy on average cannot be considered statistically significant. Such a change could be caused by increasing tire pressure, reducing engine or transmission oil viscosity, fixing dragging brakes, performing routine maintenance, or changing one's driving habits, among other things.

Tom Kite

21 Sep 1998

Thanks for taking up these wonder additives.

But I would not recommend single viscosity oil, even for old cars. If your old car does not consume too much oil, use synthetic oil and maybe increase the drain interval by 50 % if you think the oil is too expensive. Oil consumption will be smaller with synthetics. If it does consume lots of oil, you should fix the engine, not try to run it on cheaper single viscosity stuff.

So here is a skeptic comment: Your reasoning in terms of science is very good, but what is your expertise in the fields of internal combustion engines? You do not refer to any source in your last paragraph, so I assume that it is you speaking in the last paragraph. How do you justify the sentence "That multi-viscosity stuff is for the younger set." What do you mean? I personally use Mobil 1 in both my cars (Rabbit -86 and Jetta -91).

reply: I've noted my source.

According to my (professional) sources, it is the best oil on the market. I think Porsche even supported extended drain intervals, but maybe that was changed again (too complicated, I guess). This is no evidence, but the Jetta's engine still does not need any oil fill-up between the 10,000 intervals after 130,000 Miles. Moreover, the oil level is almost constant.

Since the oil consumption is reduced with synthetics due to their higher boiling points, catalyst poisoning is reduced which might save you trouble (at least here in Europe) because you may need a new catalytic converter later. Alright, this is theory, I do not own 1000 cars which run under comparable conditions for 40,000 Miles each.

Klaas Burgdorf
Sweden

25 Jun 1998

I have recently downloaded and updated my desk copy of your quite brilliant Skeptics Dictionary. Over the last year or two it has seen much use, fighting of MLM people, I used it to chase a tarot reading maniacs back to where she belonged, and your piece on Ancient Astronauts has come in handy, when members in my book club had the weird idea that the pyramids were built by aliens.

Your article on Slick 50 oil additive got a real chuckle out of me, I have become a part time mechanic, looking after my VW Beetle. If you have the time, take a look at "The Sermons of Bob Hoover." This guy is in Southern California someplace and he has written a companion manual for looking after a VW Beetle (or any darned car). His style is unique, urges a common sense approach and spends lots of energy trying to keep his readers away from things like Slick 50 and other 'Go Fast' ideas that are really stupid. His site is not as cool as yours, it has a rugged functionality about it. I have downloaded his entire manual and keep it in the same directory as the Skeptics Dictionary. Take a look at <http://www.type2.com/sermons/>

Keep up the good work.

Adrian Jessop

Durban, South Africa

reply: I was sorry to see that Bob Hoover was hounded off the Internet by flamers with dim bulbs. It took me awhile to get used to the uncivil and vicious criticism that comes my way on occasion, but using filters on the mail program helps. So does that little trash can icon.

12 May 1998

Enjoyed your site, will keep coming back to read more. Would like to tell you about using Teflon additives in a two-stroke motor. I used to race go-karts and a Teflon additive for the lubricating oil would drop engine temp a good 15 degrees and add about 400 rpm on the top end to the engine. When the engine would be occasionally torn down to service it, the piston would look like it was polished, almost no scuff marks were visible.

Experience in my auto was another story. Teflon engine oil additives would plug up oil filters and cause a loss of oil pressure. Using a Teflon additive in my manual transmission was helpful and added noticeably to the ease and smoothness of shifting gears. I think there is a use for Teflon in auto's but not in the motor, use it in grease for the ball joints and bearings, and use it in manual transmissions and it will make a positive difference.

James Bare

08 Aug 1996

I found your site by accident. It is great!

I do not know much about most of your topics in the Skeptic's Dictionary, but I know a thing or two about lubricants and you are 100% right on the money about the scams in this arena. In fact, I have some very entertaining discussions with my neighbor about this subject. He is a lube specialist with Texaco here in Houston. He really does know his stuff and he supports everything you say. They spend a lot of time tweaking the mixture of their additive packages to balance all of the desired effects. If you just pick a good oil, stick with it and change it often, there is nothing else you really need. Over time, with wear on the engine, you do need to change the oil viscosity you use, but that is about all.

Keep up the good work!

Jim Cannon

17 Sep 96

In addition to the oil additive scam, you might include the "you have to change your oil every 4000 miles or your engine will spontaneously explode" scam. All of the speedy lube joints are now making every effort to scare the heck out of motorists, insisting that horrible things will happen if you don't rush in every 90 days or 4000 miles for that dump-and-pump.

Automobile manufacturers have pulled back their requirements for service, based on lawsuits filed against firms which provided false representations of adequate intervals for service. I have had an extensive career in the automotive and heavy equipment service industry. Oil analysis performed on both automotive and diesel engines indicated that the average vehicle has the oil changed about 10 times more frequently than required. Not only is this a massive waste of petroleum products, it also initiates a massive amount of petroleum wastes which require disposal in some form.

In the early 80's we extensively tested synthetic motor oils through an independent laboratory. When the results, indicating exceptionally high metal content were brought to the attention of the oil manufacturer, they immediately stopped all communication with our firm, in spite of the fact that we were (at the time) a major distributor. In one specific test, we operated a 6-cylinder GM engine under moderate to severe conditions for over 250,000 miles without changing oil. There was no indication of any engine damage or reduction of the lubricating quality of the oil below minimum requirements. There was a reduction in the additive functions, such as anti-foaming and contaminant suspension. Because the average engine uses a quart of oil every 900 to 1500 miles, the quality of the oil was sustained through the addition of that oil.

I recently watched a TV report on the possible side-effects of not changing oil at close intervals, where a "mechanic" reported that "a head gasket could just blow or anything." Anyone who can associate extended oil change intervals with the failure of a head gasket must have certified through correspondence courses.

Irv Boichuk

reply: I think Irv's right about oil changes. My absolute favorite Public Radio celebs, Tom and Ray Magliozzi (Click & Clack), say that changing your oil more frequently than at 5,000 mile intervals is unnecessary given today's oils and engines. Even this, they say, may be overdoing it. They also say, by the way, that you can mix and match any oils, even different brands, as long as you stick with the same viscosity and don't use olive or cod liver oil. [Sacramento Bee, "Click & Clack Talk Cars," Sept 20, 1996, C. 1. If you haven't heard Tom & Ray on Saturday mornings, you are missing out on one of life's great treasures and pleasures. They even have good advice once in a while. And they are on the [WWW](#).]

20 Jun 1997

I think it's unfortunate that Marvel Mystery Oil has been tarred with the same brush as Slick50 and similar "miracle engine cure-all-inna-can."

I ignored this product for years because of the name alone. But upon the suggestion of a trusted mechanic, I recently used it the way it was intended to be used: as a solvent/cleaner and top end lube. I read the skeptical follow-up in the Dictionary, where somebody implies that it's rare for well cared for engines to require harsh cleaning. IMHO, what's rare is people who take good care of their cars.

A bit further down the page, another person mentions the Car Talk radio show (which I also enjoy). Well, Car Talk has a web site, <http://www.cartalk.com> and they've been developing a database of car facts from their visitors. The study's nowhere near done, of course, but already, it's turning out that owners of Japanese cars seem to be pretty sloppy about maintenance procedures. Those kinds of owners can either flush their engines with some really harsh cleaners, after mucking their engines up by not changing oil in 25,000 miles, or use a product like Marvel Mystery Oil, which leaves behind an oil coating as it cleans. If they've gotten to the point of needing to take off a valve cover, and find a real nasty mess in there, try putting an inch of Marvel in the cover, along with a few nuts and bolts for agitation - and just shake it a bit. This stuff cleans quite well, without entirely destroying all the oil film the way many ordinary flushes do.

I feel obliged to point out I am a home mechanic, I don't sell any of this stuff. Adding a few ounces of MMO to the crankcase in a really dirty, neglected engine and driving it around for about forty miles made a real difference in one car I experimented on (a 1987 Nissan truck with 100,000 miles). There's a hill near my house I use as a sort of diagnostic test. It had been chugging up that hill at 35 mph, with hesitations, pedal to the floor. After running with MMO in the crankcase for a bit, it went up that hill at 50 mph, with less hesitation. I can view a section of timing chain from the oil filler hole. It was WAY cleaner after running MMO.

I looked into why this legitimate product had such a hokey name. It turns out the inventor's name was Marvel and he got his start back in the early days of aviation. People were less reactive to lurid product names in those days, I suppose. Tradition and name recognition have their own momentum. Whatever, it's unfortunate, but there it is. It is a legitimate product anyway. The major ingredients, naphtha and wintergreen, have been around for decades as solvents and cleaners. If you've heard anything disparaging about them, I'd sure appreciate hearing it.

Regards,

Chita Jing

reply: Actually, Chita, I've never hear from anyone paraging or disparaging Marvel Mystery Oil until you wrote. I hope those readers who only change their oil every 25,000 miles take your advice. Though I think such people have more than car problems.

15 Aug 1997

I read your discussion about Slick 50 and other oil additives. However, I would like to set the record straight as you are erroneously lumping Slick 50 in with all the other charlatans in this industry.

Slick 50 does have the test results to back up their claims with respect to wear reduction. These test results are from the ASTM Sequence III-D Wear Screener conducted at a nationally recognized testing facility in San Antonio, TX, which I won't name at this time. These tests were conducted a number of ways, using the reference oils as specified in the test parameters and utilizing well known commercially available oils for reference. In each instance, the test with the Slick 50, resulted in wear reductions of approximately 50% when compared to the reference oil. The III-D Sequence test is, or was at the time, the industry standard for wear evaluation, oil oxidation, and viscosity results with respect to engine oils. The test has since been upgraded to the III-E Sequence test. The difference being the D used an Oldsmobile V-8 and the E uses a Buick V-6 engine, making it more closely reflect the engines on the road today. Since most of the wear occurs during the first of the test, the Wear Screener portion can be run without going through the entire test where viscosity and oxidation are concerned. I was the consultant charged with seeing that this work was accomplished under strict industry standards, and I have copies and results of all this work. I would be happy to talk with you about these tests and the results if you are interested in the facts where Slick 50 is concerned.

reply: Send me the reports and maybe I'll publish them on the WWW.

Additionally, the carrier oil utilized by Slick 50 is not an SAE 50 viscosity, but a crossgraded, multiviscosity, fully formulated API SH/SJ. To my knowledge, they have never used a single grade SAE 50 viscosity, although they did use an SAE 30 viscosity before switching to the multigrade product. The oil carrier manufacturer is a national oil company that I won't name either.

Early in the 80's, Slick 50 was a dubious player and their entire emphasis was on multilevel marketing, not product development or technical verification of the claims made about the product. The company back then was called Scientia and Petrolon. However, when Ron Fash took over the operation, he undertook to prove or disprove the capabilities of the product and develop the product from a technical standpoint to allow its introduction into the mainstream market. Fash has since moved on, but the product has been improved from his

time and does have the accepted industry tests to back up its claims.

A couple of other points. DuPont and Slick 50 entered into a joint agreement some time ago to further develop the aspect of PTFE to lubricants. I don't know if that partnership still exists, but the statement that you mention in your discussion from DuPont is close to 15 years old and meaningless today. As further credibility for Slick 50, the company was recently bought by none other than Quaker State, indicating that the snake oil mantle is ill placed on Slick 50.

reply: I assume Quaker State would buy Slick 50 because they believe they can make money from the deal, not because of the integrity of the product. Rather than see the credibility of Slick 50 go up by this deal, some might see the credibility of Quaker State going down. The FTC wasn't too impressed with Quaker State's [advertising campaign for Slick 50](#). I assume you did your tests after July 1996, or did the FTC lambaste you as well as Quaker State?

I too am a skeptic when it comes to products like these since I have been in the lubrication industry for some 30 years. All the others are just "me tooers" and none have spent the money and effort to verify the credibility of their "products" like Slick 50. Testimonials, racer endorsements, engines running without oil, squealing bearings, and other such gimmicks don't impress me. Yes, Slick 50 did use these dubious methods at one time, but not since the early 90's.

I would trust that you will examine the facts that I have mentioned and correct your misconceptions about Slick 50 and inform your readers of these facts also. I will be happy to talk with you about my comments and anything else pertaining to Slick 50 that you may want to know. Thanks for your time.

Jerry T. Shelby

reply: Whatever the test results, the questions will still remain: does the average person driving the average car really need to put any of these additives into their oil pan? Are there cheaper alternatives? Are the cars that benefit significantly from such additives going to last that much longer or perform that much better than they would from either no intervention or intervention with a cheaper product?

*26 Aug 1997 **reply to the reply:***

Your response to my letter was not unexpected and typical for a pseudo expert such as yourself...don't confuse me with the facts, ignorance is bliss.

The report results have already been published in several Slick 50 marketing brochures, but since you don't seem to believe them, why should I think you would believe the source reports.

You are right, the mere purchase by Quaker State does not necessarily lend credibility to the company or the product, but you conveniently failed to address

the DuPont matter and partnership. Would DuPont get involved with snake oil people?

I never said Slick 50's use was necessary, only that the benefits of its use can and have been documented in industry recognized tests and evaluations.

Your lack of resourceful research and objectivity in this matter leads me to question all the information on your web site, and as such I will delete it from my favorite places....who cares, right!!!???

reply: It never occurred to me to use a Slick 50 marketing brochure for objective evidence on the accuracy of the claims made in their advertising. I must have swallowed too much sea water as a child and it's affected my critical sense. As far as Dupont goes, maybe they saw the light. Since Slick 50 and others were just putting their product, Teflon, into their additives, why not join forces? Anyway, I did check out another source, Ray and Tom Magliozzi, who write:

Slick 50 has actually conducted some bonafide research. And the research was legitimate enough to be published by the SAE, the Society of Automotive Engineers. And that research showed--to our satisfaction--that Slick 50 does make a difference during those first few seconds of operation (although there is still no evidence that it does anything to improve mileage). ...

According to the report published in SAE, Slick 50 adheres to the moving parts of the engine, and serves as a lubricant before the engine oil gets distributed. And those first few seconds ARE when a lot of wear and tear take place. ...

So, if you think it is important to protect those moving parts during those first few moments, by all means, use Slick 50. Just remember that while you are coating the moving parts you are also coating the non-moving parts, like oil passages and filters. While you're at it, write to all the car manufacturers and ask them why they don't recommend using Slick 50. Are they hoping our engines will wear down faster, so we'll have to buy a new car sooner than if we'd had that extra protection? [Click [here](#) to read the vice-president of Slick 50, Doug Ross, answer this and many more questions about the miracle product.]



[slick 50](#)

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April 4, 2002

PHNOM PENH

(Reuters) - A 14-year old virgin girl was strangled in a good luck sorcery ritual in Cambodia, police said Wednesday. Police said two men -- a 22-year old sorcerer and his student -- were charged with the murder in court Wednesday. Another four were charged with conspiring to commit murder.

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[Sokal hoax](#)

sorcery

Sorcery is, literally, [divination](#) by casting lots (from the Latin *sortarius*, one who casts lots). Sorcery is also often identified with [witchcraft](#) and [black magic](#), both of which involve getting power from association with evil spirits or [Satan](#). Sorcery is often associated with using magic potions and casting [spells](#).

Last updated 09/21/02



[souls](#)

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speed-reading

Speed-reading is the purported ability to read as many as 10,000 to 25,000 words a minute. For example, [Howard Berg](#) claims to be able to read 25,000 words a minute by reading "15 lines at a time backwards and forwards." That's about 80-90 pages a minute. Tolstoy's *War and Peace* should take Berg about 15 minutes to read.

[George Stancliffe](#) claims he has taught a woman with a reading disability to read 18,000 words a minute. Such a feat, he says, is common in children, but rare in adults.*

Anne Cunningham, a University of California at Berkeley education professor and an expert on reading, reports that tests measuring saccades (small rapid jerky movement of the eye as it jumps from fixation on one point to another) while reading have determined that the maximum number of words a person can accurately read is about 300 a minute. "People who purport to read 10,000 words a minute are doing what we call skimming," she said. Speed in reading is mainly determined by how fast a reader can understand the words and expressions one is reading. The fastest readers are those with excellent "recognition vocabularies." Faster readers can see words and understand them faster than slower readers. To improve one's speed at reading, she says, one should work on comprehension and study strategies (Robertson).

Others claim that "the average college student reads between 250 and 350 words per minute on fiction and non-technical materials" and that a "good" reading speed is 500-700 words per minute.* It does seem intuitively true that one could speed up one's reading by (a) spending less time between eye movements; (b) taking in more words with each fixation; and (c) always moving forward, rather than skipping back to re-read something. Having a good recognition vocabulary would certainly speed these processes up. Conscious practice at improving one's speed should also help.

Berg has repackaged the [Evelyn Woods Reading Dynamics](#) course, one popular several decades ago with people like John F. Kennedy. A reporter who attended one of Berg's classes noted that in his five-hour course, Berg hadn't said much about *comprehension*, except to suggest that it would come with practice. This did not deter several of the 35 students, who had paid \$51 each for the class from the Learning Exchange in Sacramento, from purchasing audio tapes for \$65 (Robertson).

Those desiring to increase the speed of their reading would do better to enroll in a community college course devoted to building study skills, vocabulary,

and reading comprehension. It would cost them less, and they would not end up wasting their time trying to read 10 lines at a time, backward and forward. They would also avoid the frustration that will be inevitable when they find that while they can skim through material at a greater rate than they can read it, the utility of such a skill is limited (good for most of what's likely to be in the daily newspaper, for example, but not for studying physics or reading a good novel). Skimming makes both comprehension and taking pleasure in words or ideas next to impossible. Why read fiction at all if you don't want to enjoy the language and the ideas? Who would want to hire a physician or lawyer who skimmed rather than read his or her texts?

*** There seems to be only one person who can read at such speeds with near-perfect comprehension. His name is [Kim Peek](#) and he has the ability to read two pages simultaneously, one with each eye, with 98% retention. Nobody knows how he does it but he was born without a corpus callosum, that bundle of nerves that connects the right and left hemispheres of the brain. However, others have also been born with no corpus callosum, or have had it surgically disconnected, without resulting in an increase in reading or retention abilities. Kim can recall most of the contents of some 7,600 books. But, since nobody knows how Kim Peek does it, nobody can teach this skill to others.**

Kim Peek was partly the model for Raymond, the *idiot savant* in the movie *Rain Man*.

further reading

- [Influential Studies in Eye-Movement Research](#) by Eric J. Paulson
Kenneth S. Goodman
- [SUGGESTIONS FOR IMPROVING READING SPEED](#)
- [Speed Reading Self-Pacing Methods](#)
- [TIPS FOR INCREASING READING SPEED](#)
- [Measuring reading speed](#)

Robertson, Blair Anthony. "Speed-reading between the lines," *Sacramento Bee*, October 21, 1999, front page.



reader comments:

spontaneous human combustion

18 Dec 2000

I've been reading your article and the readers remarks on Spontaneous Human Combustion. While I don't believe any of this "fire from within" stuff, I do believe human bodies should burn well and quickly in an atmosphere of pure (or highly enriched) oxygen. Extra oxygen reduces the ignition point of materials, and lets them burn at a much higher temperature and speed. In a chemistry lecture, a cigarette was dropped into a glass of liquid oxygen. It burnt within about 2 seconds, brightly illuminating the room. If human fat burns in a normal atmosphere, it should be easily combustible in pure oxygen, maybe the little heat generated by friction with clothes might do to ignite it. (The Apollo 1 mission failed due to a fire in the Command Module, which contained a 100% oxygen atmosphere. The inside of the Module burnt to a crisp (and so did the astronauts), see <http://images.jsc.nasa.gov/images/pao/AS1/10074802.jpg>)

reply: There may have been one or two poor souls whose last cigarette was enjoyed while they were hooked up to an oxygen tank, but as far as I know most of the alleged cases of SHC have occurred in places with an ordinary amount of oxygen.

Now why does the fire suddenly stop and leave i.e. the feet or furniture untouched? The most likely answer is that the oxygen runs out. A room of 40 m³ (5x4x2 m) contains about 40 kg of oxygen (in a pure oxygen atmosphere, in normal atmosphere about 1/5th), which burns less than 1/2 the amount of organic material (the resultant gases are H₂O and CO₂, in both the oxygen makes up for >2/3 of the mass) so after burning about 20 kg of organic material the oxygen should be spent. 2/3 of a human body are water, I don't know how much of the rest are combustible organic material but I think about 20 kg is not too far from plausible - in which case the oxygen in our example room would do to just burn the body, if doors and windows are closed so that no extra oxygen can get inside. The question here is: are there signs of a higher than normal oxygen concentration in the rooms where supposed SHC has occurred?

Ciao, Alex

reply: Lack of oxygen is as good an explanation as any other I've heard as to why these fires don't consume everything in sight.

07 Jan 2000

I am writing in regards to your article on spontaneous human combustion (SHC). You say "While no one has ever witnessed SHC, several deaths involving fire have been attributed to SHC by investigators and storytellers." You really should investigate your stories just a bit more before you go putting this trash on here. That's what a professional would do anyways. Here are only a few quotes from other articles from a book I read written by someone who had done about 10 years of research into this matter and ALL of them include people who witnessed the whole thing.

reply: You really should be a bit more skeptical of what you read. It does sound impressive when someone says that they have been "researching" a book or topic for 10, 20 or 30 years. However, such claims should be taken with a grain of salt. It is not how long one spends doing something that matters so much as *what* one does. Eric von Däniken (just to mention one such creature) has studied alien landings in ancient times for many years but that does not mean he has done anything worthwhile.

One should be especially skeptical when reading books on the marvelous and the mysterious. Authors know what sells and know that there is little chance their work will be scrutinized because most serious scholars and investigators consider such stuff unworthy of their time and attention. The editors of such stuff don't care whether it is true or false; what matters is, will it sell. As long as there is a large section of the public who are gullible and desirous of such stuff, it will continue to be popular.

THE SUDDEN COMBUSTION- of Mrs Mary Carpenter who perished while vacationing on a cabin off Norfolk England on July 29,1938 took place in full view of her husband and children. She "was engulfed in in flames and reduced to a charred corpse" in minutes. No one else was burned and the boat was undamaged.

A FORMER ACTRESS- Mrs Olga Worth Stephens age 75 of Dalls, Texas was sitting in a parked car in October 1964 when witness saw her burst into flames. She was fatally burned before anyone could come to her rescue. Firemen said that the automobile was not damaged and contained nothing that could have started the fire.

ON AN OCTOBER EVENING- in the 1950, 19 year old Maybelle Andrew's was dancing with her boyfriend Bill Clifford, in a London discotheque suddenly she burst into flames .The fire blazed from her back and chest, enveloping her head and igniting her hair, her boyfriend and some of the bystanders tried to beat out the flames but they could not save her, she died on the way to the hospital. According to Clifford's testimony: I saw no one smoking on the dance floor, there were no candles on the tables and I did not see her dress catch fire from anything. I know it sounds incredible, but it appeared to me that the flames burst outwards, as if they originated within her body.

Really, you should be embarrassed of your ignorance.

R.Mackey

reply: Perhaps. But I think you should be more embarrassed by your gullibility.

7 Jan 2000

I read about spontaneous human combustion many years ago from a book entitled: FIRE FROM HEAVEN. I have often theorized one possible source, that is: MICROWAVES. perhaps directed on a target by a radar antenna or other method, and maybe, for the sake of government defense. That or some high voltage or high power radio waves. It's just a thought. Thanks for the time to let me add this comment.

NS

reply: The house as a microwave oven with the smoldering body as the meat is a very unlikely scenario. Many of these alleged cases of SHC go back centuries and are not likely due to government experiments or high power lines.

Maybe aliens are taking pot shots at people with new weapons.

02 Jan 2000

I read your article on spontaneous human combustion and I was just e-mailing you not to criticize you but to make a point. In the case of Beatrice Ocki of Bolingbrook Illinois the woman's feet were not burnt and it appeared to me that she was wearing nylons (it looked [like it, but] I don't know). Anyway, how come her feet were not burnt and how come the rest of the room was not burnt or the rest of the house for that matter? I just think it is pretty bizarre that something like that could happen and from the looks of things, but I will created [sic] you this that the body fat could burn and if it was a cigarette but I mean the rest of the room would have caught on fire and her legs would have burnt to a crisp. Well like I said I am not here to criticize you but I am just e-mailing you just to make a point. Thank you for your time and understanding.

Timothy O'Reilly

reply: I don't know why her feet were not burned or even if they were not burned. Maybe there was not enough oxygen left in the room to keep the fire going; maybe there was not enough combustible material in her body to keep the fire going.

I don't know why the rest of the house did not burn. Maybe the fire was not hot enough to spread, or the room was too cold.

What I do know is that the probability is greater that people whose bodies are partially burned in house fires are more likely to have been ignited by their own carelessness or by foul play than by spontaneously bursting into flames.

Why is it assumed by believers in SHC that fire would burn differently if caused by SHC than by accident or foul play? Whether fire begins inside a body or outside it, once it reaches the outside shouldn't it burn like any other fire? In other words, partially burned bodies and houses that are not burned are not signs whether a fire started inside or outside the body.

11 Jan 2000

A couple of quick answers to your "I don't know" in response to Tim Reilly 1/2/00.

1. I've seen those pictures of the unburned feet in a couple of different places. Real easy answer: Fire burns up, not out. Light a long wooden match and hold it parallel to the ground. It will burn out before it reaches your fingers almost every time.

2. The rest of the house rarely burns in "SHC" incidents. The reason is that the wick effect causes very high temperature smoldering with short flames. This was shown with a simple demonstration done on a skeptical (gasp!) documentary on, I believe, The Discovery Channel (Could've been TLC, but I doubt it). They wrapped a pig carcass in a blanket (haha) and lit it with a lighter (if I remember correctly; could've been a match or something similar). The carcass burned slowly and surely with short flames. The articles in the test room used to simulate a normal dwelling (TV, some furniture) were damaged only by the heat of the fire. That is to say that the wood furniture was unharmed but the plastic parts of the television were melted. It was such a simple test I'm (not) surprised that the proponents of SHC didn't think of it earlier.

Steve Young

4 Jan 1997

Good Day, and a Hot New Year to you. Found you thru INFOSEEK, and read your amusing citation on spon-comb.

Regrettably it needs to be updated. Significantly, we humbly suggest. Yes, "the physical possibilities of spontaneous human combustion are remote." Doesn't mean it doesn't happen tho. We've spent 22 years arriving at that conclusion,

*the results of which appear in our book, **ABLAZE! The Mysterious Fires of Spontaneous Human Combustion** (Evans, 1995). 500+ pages of truly bizarre fires, emphasizing SHC. As in reported by and attested to by fire officials, medical personnel, etc.; eyewitnesses; survivors of partial self-ignition; and good ol' common sense and best evidence.*

We'd urge you to get a copy Forgive the merciless self-plug, but if you want to know much more about SHC than your dictionary offers, this was the way to inform you.

Larry E Arnold

reply: Twenty-two years of research on spontaneous human combustion! Now that's what I call dedication. And I thought the topic was worth maybe 22 hours of devotion. Let's hope your book is ten times more interesting than either my entry on the subject or the subejct itself. In the meantime, what's your next project? [human spontaneous involuntary invisibility?](#)

27 May 1997

Your conclusions are generally quite true; however, your arguments against SHC could be a good bit stronger if you consulted with an expert on combustion. For example, to say that fire burns at a temperature above 200°F is an understatement. I guess you are thinking about the boiling point of water. The temperature of a flame depends on many variables, including the rate of combustion and the kind of fuel, and combustion temperatures often exceed 2000°F. Conditions for ignition vary considerably also. Paper in air will burst into flame at about 452°F, and some volatile fluids will flash at even lower temperatures, but you are quite right that human flesh is not readily combustible.

Duane Pontius

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victim soul

But the goat, on which the lot fell to be the scapegoat, shall be presented alive before the LORD, to make an atonement with him, and to let him go for a scapegoat into the wilderness (Leviticus 16: 10).

And he shall make an atonement for the holy place, because of the uncleanness of the children of Israel, and because of their transgressions in all their sins: and so shall he do for the tabernacle of the congregation, that remaineth among them in the midst of their uncleanness (Leviticus 16: 16).

A victim soul is a person who suffers pain or sickness for another person. This notion is clearly related to the belief that Jesus of Nazareth redeemed humankind by suffering and dying for our sins. Christ as scapegoat probably goes back to the ancient Jewish custom of letting a goat loose in the wilderness on Yom Kippur after the high priest had (symbolically) laid upon the goat all the sins of the people (*Leviticus 16*).

According to the Most Rev. Daniel P. Reilly, Bishop of Worcester (Massachusetts), the concept of the victim soul was popular in the 18th and 19th centuries. He has set up a committee to investigate the claims that a young girl in his diocese, [Audrey Santo](#), is a victim soul. The girl allegedly agreed with the Virgin Mary to be a victim soul when asked while on a pilgrimage to [Medjugorje](#) in Bosnia-Herzegovina (formerly part of Yugoslavia). At the time the girl was four-years old and in a comatose state due to an accident that had destroyed a good part of her brain a year earlier. Her mother, Linda Santo, had hoped for a miracle cure. Instead, she says, the Virgin Mary appeared to her daughter and talked to her about being a victim soul. Linda Santo claims that her daughter suffers so others can live and has turned her lifeless daughter into a [living relic](#).

further reading

- [Mass Media Bunk](#)
- [Miracles or Deception? The Pathetic Case of Audrey Santo](#) by Joe Nickell, *Skeptical Inquirer*, Sept/Oct 1999.

[Nickell, Joe. *Looking For A Miracle: Weeping Icons, Relics, Stigmata, Visions and Healing Cures* \(Prometheus Books: Buffalo, N.Y., 1993\).](#)



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reader comments:

stigmata

21 Sep 1999

I'm sure now with the movie's prevalence [[Stigmata](#)], this topic will seem slightly trite, but the fraudulent claims of stigmata can also be demonstrated by the point of puncture wounds on the hands (a physiological impossibility) instead of just below the wrists (a fact that the movie pointed out as well, and was one of its few saving graces).

Absir Dittee
Los Angeles

reply: Mr. Dittee is referring to the historical data which suggests that when the Romans crucified a person, the nails were driven into the wrists, not the palms. There is, of course, no *physiological* impossibility of nailing the palms, but physically to do so would put so much weight on the flimsy bones and flesh of the hands that the body of an adult male would not be supported for very long. Hence, a "real" stigmatic would have wounds on the wrists, not on the palms.



reader comments:

the unconscious mind

16 Nov 2000

I enjoyed going through the Skeptic's Dictionary, but I feel there are a couple of places where you are attacking a straw man. Unfortunately my argument has turned out to be fairly lengthy in order to be complete, so I don't expect you to read it right away, but hopefully at some point you can consider these points.

In the meantime, my compliments on the rest of the site which is very well done.

One quibble is your discussion of the unconscious mind, which looks at only the question of repressed memory and whether the unconscious mind can be shown to have some physical location in the brain.

Another definition of the unconscious mind could be those things which occur in our minds, of which we are not conscious.

When I eat lunch, it is the result of a conscious decision. When I fall in love, it is not (typically) the result of a conscious decision. Falling in love, therefore, can be categorized as an example of the operation of the unconscious mind. You can say that falling in love is caused by the operation of various chemicals in the brain, but that's not really saying anything different. If it happens in my mind, and I'm not conscious of it, it's happening in my unconscious mind.

That also brings in your discussion of Jung, which I think also is an oversimplification. In this case, Jung himself should be differentiated from Jungians, who often say a lot of things that Jung himself did not.

Jung says that the unconscious mind has two components, the personal unconscious and the collective unconscious. The personal conscious is based on our own experience and the collective unconscious is wired in to the structure of our brain.

An example of the operation of the personal unconscious is the distance at which you feel comfortable conversing with someone. If somebody moves too close to you, you feel uncomfortable. This distance varies according to which culture you were brought up in. Therefore, it must be something that is learned. However, it is not something that is learned consciously like reading or how to use chopsticks; thus (by definition) it is learned unconsciously.

Even if you know consciously why you feel uncomfortable, it doesn't stop you from feeling uncomfortable. The personal unconscious has nothing to do with "repressed memories".

Jung postulated that we have some built-in unconscious functions. Again, one example of this is falling in love. In Jungian terms, we possess an archetype of a spouse which pre-exists in our minds. The operation of falling in love is the identification of this archetype with a particular person. Once we are in love with that person, our interactions make use of the archetype. Other archetypes would include mother, father, infant. It is essentially the same process that causes baby birds to imprint the first animal they see as their mother. Another example would be the torturers in Argentina who, after killing the parents for their political views, took pity on the poor orphaned baby and raised it themselves (numerous such cases). Jung would say that they exhibited an archetypal response to the infant.

(An archetypal response to an infant is typically to take care of it--but only if you identify it as your own.) Or consider childless people who treat a pet like a child rather than an animal. Archetypes are much the same as what are often called instincts.

Keep in mind that Jung started his career working in a lunatic asylum at a time when modern drug-based treatments were not available. There was little that could be done in terms of treatment, but he had ample opportunity to study the ways in which people's minds went wrong. This is what led him to the idea that the basic structures of the mind are the same, but in insane people they operate in inappropriate ways. Thus a stalker might be making use of the spousal archetype, but applying it to a person he never met.

You could study the operation of these common archetypes by studying other primates, and we find that there do appear to be built-in instincts for parenting, forming social groups, etc. For example, childless female apes will play with dolls.

Jung further speculated that humans came ready-wired with a lot of other archetypes as well. He devoted quite a lot of time to comparing religions and mythologies in an effort to identify these. This also involved him in studying such topics as astrology, Tarot cards, etc. to identify their archetypal content.

This is where I think the skeptics get nervous and turn back. A skeptic sees someone who believes in astrology and reacts by saying that astrology can not be proven scientifically. By implication, that person is stupid for believing it. Jung asks, why does that person believe in astrology and not in some other unprovable theory like a flat earth? A belief in astrology is fulfilling some need for that person. Jung was interested in identifying those needs and classifying them under the name of archetypes.

Many skeptics have difficulty understanding the difference between studying a belief and believing it. Jung was interested in astrology because people believe in it. He was also interested in UFOs because people believe in them. He wrote a whole book about UFOs which begins "I have absolutely no interest whatever in whether UFOs really exist or not". The book describes how UFO beliefs share a lot of common features with other archetypal beliefs such as elves. Yet I often see skeptics claim that Jung "believed in UFOs".

You claim that archetypes are invalid because they are not empirically testable. I think this misses the point. The concept of an archetype is merely a classification device. Certain instincts are grouped together because they commonly appear together. You might as well claim that the Dewey Decimal System is invalid because there's no empirical test that will predict the call number of a book.

Jung postulates that since archetypes are hardwired into the brain, they must exist essentially from birth in everybody. One way to deal with archetypes is to bring them into your conscious mind. For instance, you could engage your child-nurturing archetype by raising your own children. You could also engage it by other activities such as coaching a children's soccer team, volunteering at the YMCA or whatever.

Jung says that any archetypes that you keep out of your conscious mind stay in your unconscious where they can affect your actions, not always in a beneficial way.

How to tell which archetypes are most at work in your unconscious? You must examine the operation of your unconscious. One way to do this is to look at your dreams. I think the current scientific opinion is that dreams are side effects of the way that long term memories are stored during sleep. That's why the content of dreams are frequently related to the previous day's events.

Jung, though, is interested in the side effects. Of those random images that are called up by the storing of the day's events, why this one and not some other one? He thought that relating the content of dreams to the archetypes called up (out of all the potential ones in existence in your brain) could give clues to the emotional reaction to those events, particularly unconscious ones. You mention some of these concepts in your entry on dreams.

Jung did appear to have a real belief in synchronicity, which is hard to defend. However, if we consider this to be a case of [apophenia](#), then it becomes consistent with the rest of the body of thought. Apophenia is an effect of the unconscious mind, which gives us clues to its operation. Why does the beetle cause apophenia and not the sandwich?

Jungian analysis based on this theory is that in order to have a fulfilled life, you need to connect all your archetypes to your conscious life. For most

people, marriage, raising a family and having a reasonably interesting career or hobbies will more or less cover all of them. But for some people who are unhappy in their lives, it may be because some archetype (built-in instinct) has been excluded from their conscious and hence remains in the unconscious. Analysis consists of identifying the archetype by means of looking at dreams, emotional reaction to works of art, etc. When the archetype is identified, the patient then can look around for ways to incorporate it into his or her life. As noted in your entry on dreams, only the patient himself can provide any useful insight into the emotional content of his dream images.

(Note: modern psychoanalysts do not claim to be able to cure diseases such as schizophrenia. Freud thought it was possible, because the cause of schizophrenia was not known during his time. However, modern psychoanalysts try to help people find ways to cope with their problems, among which may be schizophrenia or other diseases.)

Interestingly, Jungian theory provides an answer to the question that must vex the skeptic: why do so many people persist in believing things that are easily proved to be untrue? The answer is that these beliefs provide the people with a means of bringing certain archetypes into their lives. If by this means their lives are made happier, should we care? As a society, the answer is probably yes, because otherwise we could well end up teaching creationism in science class or funding homeopathy instead of cancer research. Then, as the Jungian said to the skeptic, if you want to have people stop believing in something, you have to provide something else that involves the same archetype. Science is not necessarily the answer. There are cases, for example, of former rabid fundamentalists of the flat earth variety who found fulfillment working with the homeless or sick. Possibly people create elaborate pseudoscientific theories as a way to exercise their needs for creative activity. (There are, of course, also deliberate frauds who are motivated strictly for financial reasons.)

So, is Jungian theory science or pseudo-science?

This is not a useful question since there are plenty of other possibilities besides these two.

There is a certain amount of hard science since part of the theory is based on research on animal behavior (and human behavior).

The archetype concept is just a classification system and is more related to social science. (Calling something a "matriarchal society" has little or no predictive value.) The "collective unconscious" is not any kind of mystical concept but simply a term for the instincts and other built-in wiring of our brains, as it affects behavior.

Jung had a interest in topics such as astrology, mythology, etc. Unscientific? All these topics are products of the human mind. So are art and science. One way to study the human mind is to study its products. Of these products, some have predictive value (science), some do not. It would be inducing a bias into the research to remove from consideration all products of the human mind that do not have predictive value.

Jung appeared to have a genuine belief in synchronicity and possibly telekinesis (the exploding knife). However, if these are considered as examples of apophenia then they are not inconsistent with the rest of his theory.

I can't claim to have read all of his voluminous writings, but I have read quite a lot of it, and nowhere do I see him claim any belief in astrology, ESP, clairvoyance, spiritualism, etc. He is, however, interested in belief in these topics as examples of the workings of the human mind. Many skeptics may be deceived by the fact that he neglects to denounce these topics as unscientific. In fact, he is not interested in the question of whether such things actually exist, but rather in the question of how people think about and react to them.

There is one example of a dream Jung cites, which he says predicts the outbreak of WW I. This is not given as an example of clairvoyance, though, but as an example of how his mind was unconsciously analyzing the unstable nature of society (particularly in Germany) at the time, a matter in which many historians would agree. However, he doesn't claim any predictive value, since he says he didn't understand the meaning of the dream until after the event.

The situation is complicated by the existence of many "followers" of Jung who do in fact believe in clairvoyance, etc. Not many of these people are found within the ranks of professional Jungian therapists.

Does Jungian analysis work in terms of making people happier or better able to cope with their lives? (Excluding the problem of how this could be scientifically measured.) Sometimes it works, sometimes not.

Does methadone therapy help people get over heroin addiction? Sometimes it works, sometimes not. However, I don't hear skeptics say that methadone therapy is pseudoscience.

I think you should differentiate among

1. What Jung actually said 2. What skeptics claim Jung said 3. What amateur "Jungians" claim Jung said 4. How professional Jungian therapists have modified thinking about Jung's work based on advancing scientific thought

After all, anyone can claim that the theory of relativity proves the existence of

*ESP, but that's not quite the same as being a physicist. Or as Shakespeare said in *The Tempest* (I'm quoting from memory): I can call spirits from out of the deep! Why so can I, or so can any man, but do they come when you do call them?*

Michael Robinson

reply: I'm worn out just reading your remarks and I won't weary the reader by a lengthy reply. Suffice it to say that I have rewritten a section of the entry on the unconscious to make it clearer that I reject the *Freudian* notion of the unconscious, not the notion of an unconscious.

As for Jung...I don't think that the collective unconscious and archetypes were posited just for classification. I would prefer an explanation of irrational belief with less metaphysical baggage. To say that an intelligent person believes in something obviously false like astrology because it brings archetypes into her life isn't very enlightening.

I believe that if there is an answer to that question it might be discovered by neuroscientists. The brain seems to be on some sort of incessant quest to make sense out of everything, to find relations and connections, etc. Clearly, there is something satisfying about seeing connections. As [Jacob Bronowski](#) pointed out, this is an area where the artist and the scientist excel. I would not be surprised if it were discovered that some people believe in obviously false things like astrology because astrology is immensely satisfying and it is immensely satisfying because there are numerous complex relations and connections that can be manipulated to explain just about anything under the sun. In short, astrology fills them with a feeling of AHA Insight!

28 Oct 1999

While I agree with many of your comments regarding unconsciously repressed memories, I think it's shortsighted to refer to the unconscious mind as a memory machine rather than as a processor.

Modern psychology tends to treat the unconscious as simply the non-conscious processor of information, and suggests that the unconscious mind carries out the bulk of day to day processing. This is illustrated in the example of a person driving a car. After one becomes an experienced driver, it is no longer necessary to pay scrupulous conscious attention to every aspect of the environment. One is able to listen to the radio, have a conversation, etc. But the ability of the brain to unconsciously process is shown strikingly well in the example of a man driving while keeping his attention focused on the car to one side of the windshield. If the car in front of him slams on the brakes, the brain sends an alert that forces the man to pay conscious attention to the car in front of him... if there was no unconscious

processing, the man would have only been able to follow events that occurred within the area he was currently conscious of. This function has nothing to do with memory or repression... just the computational abilities of the brain outside of conscious awareness. Nothing mystical or occult, just good hardware design.

Brannon Smith

reply: There is little point in my exploring unconscious processing of mundane data while criticizing the Freudian view of the unconscious mind. And you may be right that modern psychology treats the unconscious mind as simply the non-conscious processor of mundane information. If so, that is too bad, because there is sufficient evidence to support the belief that implicit memories do affect conscious thoughts and actions.

18 Feb 1998

Your new entry on "the unconscious mind" is as interesting as the rest of your Skeptic's Dictionary. However, I am having trouble with your narrow definition of the unconscious as "a mythical 'part' of the mind which stores repressed memories."

Although I am not a native speaker, I would describe, for example, a nervous person constantly fiddling with his pen in a conversation without thinking or being aware of it, as doing it "unconsciously". I would also state that, if I make a decision based on a vague feeling of preference (e.g. for a certain type of car), I may be "unconsciously" influenced by certain facts about car makers that I have neither repressed nor forgotten, but that I am not explicitly thinking of at the time.

I am sure you will not deny such mechanisms exist, but it appears that you have a different word for them. Which is it?

Holger Maertens

Germany

reply: Daniel Schacter and Endel Tulving introduced the terms 'implicit memory' and 'explicit memory' in their attempt to find a common language for those who believe there are several distinct memory systems and those who maintain there is only one such system. (See chapter 6, "The Hidden World of Implicit Memory," in Schacter's *Searching for Memory*.) The kinds of memories you are referring to are *implicit memories*. Schacter writes: "The nonconscious world of implicit memory revealed by cognitive neuroscience differs markedly from the Freudian unconscious. In Freud's vision, unconscious memories are dynamic entities embroiled in a fight against the forces of repression; they result

from special experiences that relate to our deepest conflicts and desires. .
. [I]mplicit memories . . . arise as a natural consequence of such everyday
activities as perceiving, understanding, and acting." (pp. 190-191)



[the unconscious mind](#)

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reader comments:

subliminal

16 Dec 2000

Your essay on subliminal messages has a reference to the "RATS" that was "inserted" into a republican political commercial. In my opinion this is a perfect example of how the media cannot only distort a truth but take something that was never true in the first place and "make" it "true".

I subscribe to TIME, NEWSWEEK, PEOPLE, US WEEKLY, and I read the daily newspaper. I also visit some Web news site like IWON, ABCNews, and the like. When this story "broke" not one of the daily news sources I read mentioned the fact that the RATS was part of the word BUREAUCRATS that scrolled on the screen from right to left and that the image of the word RATS that was published all over the world was done by freeze framing it at just the right split second so that only those letters were seen on the screen. Every picture I saw was then taken of the entire TV screen with the word RATS on it. This made a very innocent non story seem sinister.

It wasn't until a couple of days later when I got my weekly magazines that I read about the word bureaucrats. I don't watch TV News so I don't know how they handled it, but since news sources all seem to get their information from just a couple of news services and each other I doubt they did any better. Since you did not mention any of this in your essay I thought I would let you know just in case you had not read about it. (I don't mean to imply that you are not well read or informed. I say that because although, I don't remember exactly, I think it was PEOPLE or US Magazine that actually had the whole true story. I went on the Web to see if I could confirm this and found a video clip of the entire commercial at Salon.com).

My father always used to say "Don't believe anything you read and only half of what you see". Almost 20 years after his death I wish he could see some of things going on in the media today and see how right he was.

I know! I'll go see [John Edward](#).

Thanks for the great site. I am almost done reading the Skeptic's Dictionary. Like getting near the end of a great book, I am reluctant to turn the last page and I look forward to the updates.

Lori

reply: Thank you for the update!



[subliminal](#)

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reader comments:

substance abuse treatment

16 May 2000

As one of those professionals (social worker) who works to provide lifestyle alternatives to suffering addicts and alcoholics (however you choose to define them). I maintain a bit of skepticism myself regarding the motivations and methods of many treatment programs, and my experiences regarding mental health professionals is that a large number of them are working their own issues out on others, especially their clients. This, however, does not excuse your misdirection, disingenuousness and downright dishonesty in your diatribe regarding alcoholism. The problem with your writing is, although you present some valid points, you disqualify yourself by your either dishonesty or misunderstanding.

Here are just a few:

- 1. AA does not regard alcoholics as victims. Quite the opposite. What is said is that it's not their "fault" they have a "disease," but they are absolutely responsible for all their actions.*
- 2. There are indeed other "diseases" which are similar to alcoholism in that others need to provide the diagnosis...how about schizophrenia, or other mental illnesses where denial is an essential component. You do believe that denial as an ego defense mechanism exists, don't you?*
- 3. I'm not sure whether or not alcoholism is a disease, and don't much care. When I see someone doing something compulsively (i.e.: they can't seem to stop even if they want to), I know that help will often need to come from others. Is spontaneous remission possible...of course....just like with any other malady or "disease."*
- 4. AA says that alcoholics are powerless over alcohol, not everything. This is in terms of taking that first drink and then going off on a binge, etc. Maybe none of it is really so, but AA says that they aren't bad people getting good, but sick people getting well. They also make it clear that, despite their common belief in a God (of some kind), it's not required for membership.*
- 5. AA is not alone in believing in spiritual power...the power of God. In fact, probably most of the people in the world believe in it...what's wrong with that?*

I could go on and on. I've witnessed good treatment and bad treatment, and I think most of it is bad. I think AA works for some and not others. I have no investment in any of this crap, but it irks me when dishonest people masquerade as "skeptics." Unless you are just remarkably ignorant...which is, I'll admit, what I think is really the case.

By the way, we don't diagnose alcoholism by how much or how often one drinks. Check out your DSM IV (if you have one). The criteria are pretty much behavioral. And, by the way, your implication that interventions are in the employ of sleazy treatment programs is also a misdirection....most of them aren't, and there are other models of intervention which don't ambush the "client."

For you to maintain that you'll only consider your perspective and what supports that is so bizarrely anti-honesty that I can't believe anyone really takes you seriously. Frankly, I suspect that those who truly believe your obviously biased half-truths are really not interested in reality anyway.

I'm not even sure why I've wasted my time with this, other than I'm bored with nothing to do for a few minutes.

James Sandel, MSW

reply: You probably just felt the need to vent. Social workers need social workers to help with the stress of dealing on a daily basis with desperate people, people who won't or can't help themselves, people in trouble through no fault of their own, mentally ill people who self-medicate with alcohol, cocaine, heroin, crack, crank, etc., to the point where nobody can tell what their problem really is.

If someone I know and love called me dishonest, I'd be hurt, but when a total stranger calls me dishonest, I start thinking of my college psychology professor's lecture on projection and defense mechanisms.

Calling alcoholism a "disease" and comparing it to schizophrenia or obsessive-compulsive disorder is about as useful as calling crime a disease. Choice is the key difference here, not denial. The mentally ill don't choose to be neurochemically imbalanced. The alcoholic and the criminal choose their behaviors. (By the way, just because someone is mentally ill, does not mean one has no choice in what one thinks or does. Many mentally ill people know what they are doing, do things they know are right or wrong, and can control their behavior. I think the model used by our courts, which forces a decision 'sane or insane', is mistaken. I think there are degrees of insanity and degrees of responsibility for insane persons. I would not give a person a "do anything and never go to jail" card simply because he or she was mentally ill.) And even if it is true that alcoholics have a [genetic tendency to abuse alcohol](#), it doesn't follow that they don't choose their

behavior any more than it would follow that a genetic predisposition toward pedophilia would imply that pedophiles don't choose to act on their desires. It may be more difficult for a genetically predisposed person to overcome their desires than for someone not so predisposed, but that only implies that people who don't have a predisposition to abuse children or alcohol don't deserve any special praise for being so virtuous. A genetic predisposition to behave badly does not mean you cannot be a bad person for making the choices you make.

Just because the alcoholic or drug addict has a pathological dependence on booze or other drugs doesn't make them 'sick'. The psychologists and psychiatrists, the authors of the *DSM IV [Diagnostic and Statistical Manual of Mental Disorders]*, have co-opted the language and with each new edition have created more 'illnesses' for them to treat. Just because they call homosexuality an illness, doesn't make it one (as they did in the second edition of the DSM). On the other hand, I don't agree with those who think that alcoholism and schizophrenia are not diseases because there is no agreed upon physical test or symptom for identifying the disease, as there is with things like measles or cancer. I think it is absurd to argue, as some have, that [mental disorders are not diseases](#) because they are defined by behaviors that others disapprove of or are annoyed by and are therefore nothing but value judgments.

Despite the claim by some experts that there is no evidence for a biological or genetic cause of any mental illness, there does seem to be such evidence. For example, about one percent of the population in America suffers from schizophrenia, yet the chances of being schizophrenic double if you have a cousin who is schizophrenic. The chances quadruple if you have an aunt or uncle who is schizophrenic. If a sibling is schizophrenic, the chances increase ninefold. If a parent is schizophrenic, there is a 13 percent chance that his or her child will have the disease. And if one identical twin is schizophrenic, there is a 50 percent chance that the other one is too. Does the data support a significant genetic causal factor here? I think it does.

Even so, I don't claim that only physical disorders can be called illnesses or diseases just because traditionally physicians have treated illnesses and they define them by their physical causes or symptoms. A person is more than a body with moving parts. I see no reason why it would be intrinsically inappropriate to speak of mental, psychological or emotional illness or disease. An illness or a disease is a malfunction of an organism. We may not know exactly what consciousness is but we do know that there is a relationship to the human organism's ability to function and its physiological response to emotional trauma, for example. We don't necessarily have to treat a traumatized person with drugs or tell them to wait for two weeks and the symptoms will subside. Dealing with the emotions by a variety of psychological interventions may in fact restore the organism's vitality. To refuse to call the person ill because the cause of their dysfunction was not physical seems to be mere quibbling.

But if the cause of a person's dysfunction is a chosen behavior such as abuse of drugs or alcohol, there seems to be something screwy about calling the tendency to make such a choice an illness itself. Using alcohol is not dysfunctional. Abusing alcohol renders one dysfunctional. Helping a person change the way they use alcohol is more like helping a person break a habit than it is like curing a person of a disease.

I may be wrong about this, but that's my honest opinion.

19 Aug 1999

Hi there. Very nice entry. It reminds me of my own experiences. Nearly 20 years ago I had developed a moderately severe drinking problem, one that ultimately resulted in my being expelled from college. Not long afterward, a friend brought me to an AA meeting. For the short term, it worked. But once I was back on an even keel, I started to see AA as a monumental waste of my time. Then there was the religious angle, which as an atheist I found difficult to swallow. So I stopped going. I went back to school, and managed to go through it (and get my degree) without touching a drop of alcohol -- all without AA support.

Now, AA's chapter-and-verse will tell you "once an alcoholic, always an alcoholic", and that even if one has been sober for years, one drink will bring all of that success crashing down. I can tell you that this is, at least for my experience, a load of crap. Not long after I finished school, I had a drink. As in, one drink, after which I switched to soda.

Nearly 20 years later, I have been able to keep that same pattern: have one (two, on rare occasions) drink, then change to something non-alcoholic. The last time I got drunk was about a week before that first AA meeting. Sounds to me like I've managed to cure my problem.

-- g

17 Aug 1999

First, thanks for creating this site-it's enjoyable and informative.

One of AA's traditions: "The only requirement for membership is a desire to stop drinking."

I joined AA out of desperation-my drinking was out of control and destructive-DWIs, job loss, physical problems.

I might have sought AA's help sooner, if not for the mistaken belief that it was a Christian organization that required a belief in the Christian God. It was certainly founded by Christians, and there's a lot of "God" in the literature, but it's evolved to a much more inclusive program where all who desire to stop drinking are welcome. I think you do a disservice in suggesting that AA says it's necessary to substitute "God-addiction" for alcohol addiction in order to recover.

I'm a skeptic in the God arena, but a believer in the power of shared experience in AA meetings. This, I think, is the real power of AA-to know that you're not alone, and that others have to stop drinking and find serenity.

Thanks for listening.

Hugh Vandervoort

reply: Not all AA groups are created equal. Some are obviously less forceful than others regarding belief in God as a necessary condition to get sober. There are, however, alternatives to AA, which eliminate the need to find out whether religion is going to be an issue in seeking sobriety with a particular group.

25 May 99

Interesting book, although I sometimes think you fall into a kind of Randian Ubermensch trip here & there, but we're all allowed our little flaws.

I thought I'd share a bit about my AA/Al-Anon (more the latter) experiences, 'cos I think you're tarring them a bit too heavily with the theism brush here. Experiences vary, obviously, but my experience with Al Anon is that their idea of God isn't exactly theistic. I knew one Al Anon group that was largely atheists.

My general experience has been that Al-Anon and AA see god as a metaphor. There's a tendency for alcoholics and their families to start to see everything in a hugely imbalanced, fairly control-freaky fashion. Everything that happens is perceived as a personal fault & judgement. Mom's drinking is your fault, wars in Bosnia are your fault, messy rooms are your fault and so on. It can really wrench a person internally, and one of the things you have to learn to do is differentiate between what's your fault (and responsibility) and what you can't do anything about. I've seen a lot of satires of Al-anon where it's described largely as a blaming group. My experience has been that one of the things you have to learn to do is stop worrying about problems that aren't connected to you.

Enter God. God's more or less a convenient place to hang problems that you can't really touch, and worrying about those problems doesn't do me (or anyone else) much good. God's job is to take care of the bigger problems so I can

concern myself with my own. For example, I can't do much about an alcoholic's drinking, I can hide booze, but that isn't going to fix the problem. If the alcoholic's going to do something about it, it's going to have to be his decision. Interventions, in that context, are largely useless. In AA parlance, there's a term called 'dry', which refers to an alcoholic who is basically between drinks. Dry people aren't a pleasure to be around, since they're basically alcoholics who've gotten religion. There's a distinction between dry and sober, and it's one that most people who haven't been through it themselves have a bit of trouble grasping. If you've ever been around anyone who is on a diet and makes you change your eating habits, you've got the gist. What interventions, court ordered detox programs and the like tend to do is irritate the alcoholic, which doesn't really solve the problem. You might get 'em dry, but sobriety is a matter of personal choice. Which is a large part of the paradox - alcoholics have to make a decision to become sober, and it's not really something that comes easily. Whether it's a Saul Of Damascus experience or not, I really can't say, I've heard people talk about moments of clarity, but I also know people who just eased into it over the years.

I guess the thing that surprises me the most (and you may want to pursue the literature in and out of AA on this), is that the organization is markedly different from, say Syanon or one of those culty groups. My experience with Al-anon is one of a marked lack of ego - AA is similarly goal oriented. The major focus of both organizations is to help folks (drunks or the families of drunks) to get on their psychological feet and get on with their lives. If you can do it without AA, fine with them, most of the AA folks I've known really don't care how you get to sobriety, as long as you eventually get there. I know culty, and these organizations really aren't culty - either that or I was too cheap to buy the photocopied promotional material. (Actually, promotional material isn't the right word. I've never actually seen Al Anon boost anything. Guidebooks is probably a better term).

Michael Collins

18 Nov 1998

Let me start by telling you that I am a member of AA. I am the oldest child of a UCC minister, who pretty much rejected a GOD by the time I was sixteen, not uncommon for the offspring of ministers. At fifteen I started drinking alcohol and experienced my first blackout, if you have never had one they are a strange experience, it was not until I turned 18 that I was able to drink legally and thus as often as I wanted, before that it consisted of whenever we were lucky enough to get some beer.

I experienced blackouts pretty regularly at that point, with no consequences in my life, until at age 24 I got my first drunk driving, I swore that I would never do that again, but of course did, with in the next three years I would be arrested two times more before realizing that I could not drink successfully.

In your treatise you state that an alcoholic is defined by a number of factors, when , how much etc. While this may be how treatment centers define it, it is not how AA defines it. In the big book of AA an alcoholic is defined as what happens after you take the first drink.

reply: I don't see any inconsistency here.

This rang true with my experience of drinking. Once I had taken the first drink I might stop there, or I might not stop for a day, I never knew, and once having taken that first drink had no control. If you are not an alcoholic this is probably difficult to believe, but it was my experience.

The AA big book differentiates between people who may drink a lot, by whatever scale you want to use to measure that and people who lose control of their drinking after taking the first drink.

The intervention practice you wrote about also goes against AA philosophy and is one that I have many problems with in the end a lot of times it does do more harm than good. The AA traditions are explicit about the program being one of attraction rather than promotion and at no time should anyone be forced to take the program.

reply: True. And by the same token, non-theists ought to be aware that just because the 12-step plan works for some people does not mean it is the best for them.

The steps of AA work for some reason that I cannot explain, I do not feel that they are in any way demeaning and the concept that AA tells people that they are worthless and need to tell the world that has not been my experience. Human beings are emotional as well as logical people, the steps in my experience are designed to help identify those areas of emotional/spiritual pain, without that knowledge one cannot fix the problem, you would not renovate a house with out first checking out what needed to be fixed , the steps work in the same way with the human psyche. As well there is nothing new in the AA program which was pretty much borrowed from traditional organized religions. The real difference in AA is the fact that it is one alcoholic relating to another.

I thank you for your time and listening to me, also for the efforts you have taken in your work. I hope that what I have written makes some sense.

Rod Lowe

12 Mar 1997

I read your article on Substance Abuse Treatment. I can't disagree with anything in it, and your points about being skeptical about the disease

paradigm of alcoholism and the treatment process, as well as your point about "all alcoholics not being equal", are well taken. With all due respect, however, there were places where I thought the article might benefit from editing or rewriting:

reply: Somehow, I knew this was coming!

1. If you are going to include Tim's story, I did want to know about the end of the story. Did he quit drinking? Did he not even need to? Did he get a divorce? Did he live happily ever after?

reply: Tim's story is here to illustrate the dangers of good-willed interventionism, pseudoscientific therapies for substance abuse, and greed. Obviously, Tim's wife believed he needed to quit drinking. Tim says he "sometimes abuses alcohol." They're still married, thought the interventionist/clinic experience has left a bitter aftertaste which has not diminished much in three years. As for living happily ever after....well, the point of the illustration was not to show that his life had been ruined or improved by the experience, nor was it to support the claim that SAT in general ruins or helps lives, so, whether Tim lives happily ever after or not will have to remain a great mystery known only to Tim.

2. About Tim's story: do you think that it presents your point about SAT well? It seemed to veer off into a criticism of Tim's experience. I had three problems with it:

a. It was a single anecdote. I am skeptical of the inclusion of anecdotes in critical articles. I won't say that it was a waste of space but ...

b. Even as an anecdote, it didn't really make a good point. Was it the fuzziness of the "disease" definition, or was it the inappropriateness of his "treatment", or was it the expense, or the damage to Tim's ego or another part of the anecdote that was the point?

reply: The point of the illustration is described above. Sorry it's use wasn't clearer to you. It is an anecdote, but it is used to illustrate not to prove anything. It was there to vivify the material, not to validate my critical comments. I hope other readers don't find it quite as useless or fuzzy as you do.

c. We don't really know the whole story about Tim. It was told from his point of view to an unknown observer. There may (or may not!) be another point of view that presents more details that leave the reader with an entirely different impression.

reply: Exactly. That is why the article is not primarily about Tim and his drinking problem and how he worked it out and is now living happily ever after. As I indicate in the article, I have only Tim's subjective impression

that his drinking was not as serious a problem as others thought it was. So I make no claims about whether his impressions or that of his wife were more accurate. It should not require too strenuous an effort to infer from the article that there were quite a few people who had a very different view of Tim's drinking than Tim's own view. And I'm sure the interventionist does not see herself primarily as someone paid to deliver a live patient to the clinic. I think most readers will figure out these things and that the staff at the clinic would have a different point of view from either Tim's or mine.

Finally, alcoholism and substance abuse in general are pretty subtle phenomena. I think they deserve, perhaps, a bit finer brush than you were using.

reply: The article is not really about alcoholism or substance abuse, but about *treatment* for alcoholism and substance abuse. Even so, your point is well-taken. The issue could be, and deserves to be, explored in great depth by someone whose art of criticism and depiction is much greater than mine. I suggest you read some of the sources mentioned in the "further reading" section below.

Please don't take this as a reaction objecting to your inclusion of the article; it's more a reaction to coming away with an impression that the article wasn't up to the quality of the rest of the dictionary.

Mike Coldewey

reply: I appreciate the criticism and will take your final remark as a backhanded compliment meant to inspire me to greater heights.

20 Mar 1997

*I just read your article in the **Skeptics Dictionary** about Substance Abuse Treatment. I also think the emphasis on religious content in these programs is unwarranted. However, what I wanted to share with you is this - I am an astronomer, and teach part-time at Baldwin-Wallace College in Ohio. When looking with my students through the telescope, I sometimes find that the magnification is insufficient. It is only then that I get some satisfaction from appealing to a "higher power."*

Dr. Dale C. Ferguson

09 Apr 1997

I have been greatly enjoying your skeptic's dictionary, and I was particularly interested in the entry on substance abuse treatment. I agree with virtually everything you said in it, however, there was one section which may be weak. here it is:

If alcoholism is a disease, it is the strangest disease there is. What other disease is there which requires coercive teamwork to convince the sick person that he or she is ill? If I have kidney disease, for example, I expect a certain kind of evidence to be produced to verify that I have such a disease. A few bits of medical evidence ought to suffice. I sure wouldn't need a team of interventionists to coerce me into seeing that I have kidney disease.

Though some people question whether mental illnesses are diseases, many of them easily fall into the category of diseases that require coercion in order for the sick person to accept that s/he is ill. This is often due merely to the general lack of knowledge about mental illness in our society, but at other times may be caused by the illness itself. For example, very few people with paranoid schizophrenia will admit that they have a disease. Though I question the veracity of many mental illnesses as being true diseases, I have little doubt that schizophrenia is an illness, or at the very least a developmental aberration. Simply put, schizophrenics have different brains than non-schizophrenics. Exactly what causes schizophrenia is a mystery, but it has been shown that there are differences in the mass of certain brain regions in schizophrenics and "normal" people. Bipolar disorder (manic depression) is another mental illness which is organic, and which is often denied by those who suffer from it. This may be due to misunderstanding of the disease, fear of stigmatization, or any of a million other reasons. Bipolar disorder and schizophrenia are the only mental illnesses which have medications to treat them that are proven to be effective. The effectiveness of antidepressants is generally no greater than that of psychotherapy without medication. Certainly not everyone with a mental illness refuses to admit it, but some do, and there are quite valid reasons for not admitting to something like this. It's really a minor point, but it harms your argument that alcoholism is not a disease.

reply: I don't think it is a minor point. The analogy between brain disorders and alcohol abuse is a stretch. Some people do have problems metabolizing alcohol and cannot drink without having problems. Such people are not brain damaged and should be able to understand the medical evidence presented to them. Even the genetic argument--that some people inherit a genetic tendency to alcohol abuse--does not amount to more than a claim to a *tendency*. In any case, it does not involve the notion that one's *brain* can't function properly. The only medication given for alcohol or drug abuse are either more drugs which can be abused (such as methadone for heroin users) or drugs which make one physically ill if one drinks alcohol. Such treatment is trivially analogous to treating schizophrenia: both involve prescribing a drug. On the significant issue of brain or other physical dysfunction or damage, there is no strong analogy. In alcohol abuse the most noticeable physical elements are *effects* of the abuse; in schizophrenia and other diseases, the significant physical

elements are *causes*.

One would expect that a disease which significantly affects the brain, whatever that disease, could be of such a nature that the affected person would not be capable of rational evaluation of evidence, including evidence of their own disease. There are people who have drunk so much that they have caused themselves significant brain damage, but that is a far cry from identifying all people who abuse alcohol as having a diseased brain.

Additionally, I'd just like to suggest that you might include as an entry the D.A.R.E. (drug abuse resistance education) program that has become ridiculously popular in this country despite being utterly ineffective. There is a wonderful source of information about it at <http://www.dare.org> despite the name, this site is in absolutely no way affiliated with the dare program. It is a very impressive site. [note: Reader John P. Brockus alerted us to the fact that D.A.R.E. has taken over the site and it is no longer a parody of the program many have [criticized as a scam.](#)]

Matt Wolejko



[substance abuse treatment](#)

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the sunk-cost fallacy (“throwing good money after bad”)

When one makes a hopeless investment, one sometimes reasons: *I can't stop now, otherwise what I've invested so far will be lost.* This is true, of course, but irrelevant to whether one should continue to invest in the project.

Everything one has invested is lost regardless. If there is no hope for success in the future from the investment, then the fact that one has already lost a bundle should lead one to the conclusion that the rational thing to do is to withdraw from the project.


To continue to invest in a hopeless project is irrational. Such behavior may be a pathetic attempt to delay having to face the consequences of one's poor judgment. The irrationality is a way to save face, to appear to be knowledgeable, when in fact one is acting like an idiot. For example, it is now known that Lyndon Johnson kept committing thousands and thousands of U.S. soldiers to Vietnam *after* he had determined that the cause was hopeless and that the U.S. could never defeat the Viet Cong.

This fallacy is also sometimes referred to as *the Concorde fallacy*, after the method of funding the supersonic transport jet jointly created by the governments of France and Britain. Despite the fact that the Concorde is beautiful and as safe as any other jet transport, it was very costly to produce and suffered some major marketing problems. There weren't many orders for the plane. Even though it was apparent there was no way this machine would make anybody any money, France and England kept investing deeper and deeper, much to the dismay of taxpayers in both countries.

further reading

[Belsky, Gary and Thomas Gilovich. *Why Smart People Make Big Money Mistakes-And How to Correct Them: Lessons from the New Science of Behavioral Economics* \(Fireside, 2000\).](#)

[Dawes, Robyn M. *Everyday Irrationality : How Pseudo Scientists, Lunatics, and the Rest of Us Systematically Fail to Think Rationally* \(Westview Press, 2001\).](#)

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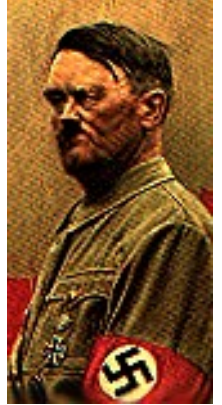
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swastika

The swastika is a symbol representing the Nazi party and all of the evil that party stood for: anti-Semitism, the Holocaust, hatred of homosexuals, desire to eliminate the handicapped and infirm, etc.



It wasn't always that way. The swastika is an ancient and frequently recurring symbol, found in many different cultures during many different times. One can find the swastika associated with Hopi Indians, Aztecs, the Celts, Buddhists, Greeks, [Hindus](#) (swastika derives from Sanskrit and means *to be well*), etc.

Whatever and however noble its ancient heritage, the symbol of the swastika has been forever tainted in the West because of its Nazi association.

Some occultists think the swastika has special value because it is found in many cultures that were unaware of each other. How can this be, they ask, unless there is some universal significance to the symbol? Easy. The symbols that are called swastikas are often [quite distinct](#). Drawing a straight line with perpendicular arms at each end going in opposite directions is one of the simplest drawings possible. Like the cross and the circle, it should be expected to be found repeatedly because of its simplicity. Swastikas are just variations on this theme. Several swastika designs cross 3-line figures. The Nazi has the arms going to the right and tilts the figure so that the tip of one of the arms is at the top. The [Jain](#) is the same, only it is not tilted. Other so-called swastikas have no arms and consist of crosses with curved lines. Some symbols look more like propellers than swastikas. The [Aztec symbol](#) looks like a stylized version of Notre Dame's fighting leprechaun. The [XFL Football League logo](#) looks like a medieval weapon. The so-called [Celtic swastika](#) hardly resembles a swastika in any significant way. The Buddhist and Hopi swastikas look like mirror images of the Nazi symbol; perhaps this is because the Hopi and Buddhist symbols are signs of peace, prosperity, good luck and love, not hate and bigotry.

further reading

- [Thomas Wilson Curator, Department of Prehistoric Anthropology, U.S. National Museum, 1894, on the history of the symbol of the swastika](#)
- [Nazi Swastika or Ancient Symbol? Time to Learn the Difference](#) by Chirag Badlani

- [Manwoman](#)
- [Friends of the Swastika](#)
- [The Swastika and the Nazis](#) by Servando González

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Last updated 07/01/02



[sunk-cost fallacy](#)

[sympathetic magic](#)



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reader comments:

takionics

23 Jul 1999

Just to let you know that the "tachyon" crowd were last seen operating from the Osho Commune (used to be the Rajneesh Ashram) in Pune, India. Perhaps the Osho phenomenon needs some skeptical investigation too, though it cleverly avoids making any overt pseudoscientific claims.

JS

23 June 99

How can you explain benefits experienced by users such as those described below in the actual words of the users? Forget the "New Age Pseudo-Science" as you describe it. What about results people obtain? The following are unpaid, unsolicited testimonials from real, live people, commenting on results they obtained using Takionic Products. Science can argue the validity of theory, but you can't argue about benefits people obtain.

Fred Pulver

[Mr. Pulver attached his testimonials page, which may be seen at <http://www.macrobiotic.org/health13.html>]. It includes high praise from Gary Null, the current darling of public television's New Age health gurus, and Curtis Sliwa, founder of the Guardian Angels.]

reply: Contrary to what you think, we can argue about the both the benefits people obtain from takionic products and the claims themselves. [Testimonials](#) are not a substitute for scientific studies, which are done to make sure that we are not deceiving ourselves about what appears to be true. It is especially necessary to do controlled studies of alleged pain relievers to avoid [self-deception](#) due to the [placebo effect](#), [post hoc reasoning](#) or the [regressive fallacy](#). We may not want to question too deeply the felt relief, but we must question the *cause* of that relief.

Also, while many of the testimonials for products like yours are honest and heartfelt, some are not. The promoters of products like yours do not check on the accuracy of testimonials, nor do they ever report the letters of those who claim the products did them no good.

Advertising claims are never acceptable in place of scientific studies done by independent researchers, i.e., those who do not have a financial stake in the outcome of the studies.

To claim that something is good because it works, when you don't know either that it does work or, if it does, *why* it works, is to commit the [pragmatic fallacy](#).

*Mr. Pulver replies:
26 June 1999*

I have not received any letters to date from anyone who claimed the products did them no good. I do believe in the product, because I have witnessed and have heard nothing but good reports from everyone who has used them. My father graduated from MIT, and is as sceptical as they come. The only reason he tried them is because I was his son, and he was willing to humor me. However, he claims they helped him eliminate pain he was experiencing in his toes. He was quite amazed at the results he obtained. He is in his 80's now. Can you really say it is wrong for me to be promoting something that is reported by the users to be of benefit? Is the criteria of user benefit not adequate just because of the possibility of placebo effect, post hoc reasoning or the regressive fallacy?

reply: Your reply is a refrain I'm sure many snake oil salesmen have used to comfort themselves as they traveled from town to town selling their quack remedies. What about the old man who has a pain here or there and tries out your takionic beads and then dies because he didn't seek proper treatment for his cancer? Of course, he didn't write to you to tell you the product did him no good. He's not writing to anyone from six feet under. Sure, he felt good for some time after wearing your beads. He even swore the headaches were hardly noticeable anymore. The tumor kept growing, however. Too bad; it was operable, too.

On the other hand, I see your point. What difference does it make if I lie or deceive someone, as long as I make them feel better? I can see the utility of such a principle in certain circumstances, but I don't think it's a good one to live by on a daily basis.

Many advances come about from people trying them, before they can be demonstrated or explained in a manner acceptable to mainstream science. Why should this be grounds for dismissal of their value? Do we all have to conform to the scientific method before we promote anything? Such rigidity seems counterproductive and illogical to me. There are many instances -- I am sure you can think of many -- where science comes in to try to explain things that seem to defy scientific explanation. Thanks to such phenomena we have new breakthroughs in research and theory. Why can't such an attitude be extended in your way of thinking to Takionic products? It would not be hard for you to

put some of the Takionic products through a trial to prove whether they are of any benefit or not, wouldn't it? After all, it is you who are challenging them. Would not such a methodology give your sceptical essays more weight than dismissing them from an "armchair" approach? That is totally unscientific. Scientific method as I understand it consists of conducting experiments to prove or disprove a suspected hypothesis. If I did them, you would probably consider them flawed. Therefore, why don't you conduct them?

*In the interests of truth, I remain,
Sincerely yours,
Fred Pulver*

reply: Testimonials from satisfied customers are not equivalent to demonstration. Anyone who claims curative powers for a product should be able to demonstrate by scientific tests that the product not only cures but also must note any harmful side effects. To the quack, this is counterproductive and illogical: to make them demonstrate the efficacy of their products before they market them is an insult to their genius and deep love for humanity! To the critical thinker, both logic and decency demand that an allegedly curative product be scientifically tested before it is marketed.

The burden of proof is always on the developer of the product, not on the potential consumer. It is not my duty to prove your products don't work; it is your duty to prove they do.

You are wrong to dismiss my argument that your products are not to be trusted without scientific testing as "totally unscientific". The skeptical attitude is a necessity for scientific thinking. Without it, we become prey to fundamental human weaknesses such as [wishful thinking](#) and [self-deception](#). [Controlled studies](#) are required to limit errors in causal reasoning. Also, critically thinking consumers should be skeptical of fantastic claims backed by nothing but testimonials from satisfied customers. Some promoters of fantastic products are unscrupulous, in it only for the money, and do not care that the products are untested or that the testimonials are dishonest. But even the promoters who are selling their products because they genuinely believe they are helping mankind should know that good intentions are no substitute for good science.

I would be suspicious if you did the tests yourself only if no one else could duplicate your results.

However, if you would be willing to part with about 25 sets of Takionic belts or beads, and make up a set that looks and feels just like the real thing but without the takionic treatment, I'd be glad to devise a protocol for testing your devises.

You and your supporters should read my essay: ["Dowsing for Dollars: Fighting High-Tech Scams with Low-Tech Critical Thinking Skills"](#)

In case you are not sure which claims I think you need to support, I will list them:

"Takionic products, with their aligned atomic polarities, enhance the body's natural ability to draw from the Tachyon Field for its energy needs."

takionic beads "have a unique ability to emit photon (light) energy from the far-infrared spectrum [4-16 millimicron (um) wavelength]" (even if true, so what?)

'the Takionic belt ... helps improve poor circulation....'

"Hundreds of tests conducted on students and adults revealed that this unique headband improved their mathematical test scores by as much as 20-30%. The headband delays mental fatigue and heightens focus and concentration." (Where are these studies published?)

takionic massage oil brings "Pain relief, increased flexibility and range of movement"

Some of your claims are too vague to be cognitively meaningful, though they have very positive emotive meanings, e.g., your takionc water is "revitalizing and refreshing."

Maybe you have not heard, but the [FTC is cracking down on Internet sites](#) which make dubious claims for health products. I've forwarded your claims to the FTC. If they give you their seal of approval, let me know.

Mr. Pulver replies:

30 Jun 1999

Thank you for your prompt reply. I appreciate your concern, and mission, to help alert unassuming and gullible people to scams that take their money while offering no real value, or even delaying treatment that may offer more real results. You are providing an important and valuable service.

We are aware of the concerns you express, and for that reason do not make medical claims about our products. There are ongoing studies being conducted at the university level which, unfortunately take time to complete. We will keep you informed of their outcome as they become available.

Have you read "Vibrational Medicine" by Richard Gerber, MD? Our products are more closely aligned with the traditional Oriental approach to health, which involves restoring proper energy circulation. As you may know, acupuncture is supposed to help in this regard because of the way it stimulates energy circulation. Acupuncture has been widely accepted as a legitimate modality. At first, however, it met with stiff resistance until a large number of cases that had shown improvement were well-documented. We are in a similar, preliminary phase of gathering data and documentation to support the theory.

Until such a time, however, we try to be careful not to promote Takionic products as alternatives or replacements for conventional therapy. In this regard, we wholeheartedly agree with you about the importance of making this distinction as clear as possible so that people will not be misled.

Again, your efforts in this regard are appreciated.

Fred Pulver

reply: Contrary to what Mr. Pulver claims, the data supporting acupuncture is not strong except for a very limited role in temporary relief of some types of pain.

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[tarot](#)

reader comments:

tarot

30 May 1998

...regarding tarot cards -- I have a deck and have done readings for fun, and been astounded by the results. M.A.s, M.S.W.s, R.N.s, M.D.s, and PhDs, despite being told that the cards have no power and neither do I, still manage to make the cards fit their lives, no matter the mental contortions necessary. Or, they just refuse to have their cards read, for fear of evil spirits or some undefined connection with Satan. I suppose the joke's on me, for having thought an education necessarily created a more critical mind.

Your dictionary is a wonderful thing. Many thanks for having created it (my jaw literally dropped open while reading the firewalking entry).

Lisa

What a great job you've done on this dictionary! It has taken me several days to read through it, and I will be back.

I must agree with a recurring theme of yours - how fervently people want to believe even the lamest crap you can imagine. Years ago, I used to read tarot cards. I always told people that these were just pieces of paper and that this was just a party trick. It didn't matter. I was informed repeatedly that I did not have to be a believer myself for the spirits to channel through me. I could not convince them that I was a fake. I finally quit bringing my cards to Halloween parties because people refused to NOT believe in me.

Keep up the good work.

Leslie Steach

18 Apr 1998

*If you're interested in (an attempt at) a critical history of occult tarot for use as a reference, check out *A Wicked Pack of Cards* by Decker, Depaulis, and Dummett (New York, St. Martin's Press, 1996).*

The lords/ladies/servants titles are not seen on the more popular tarot decks

today. The agriculture/warriors/clergy/commerce attributions are also somewhat out of line with the notions popular among most tarot practitioners today.

Suits in playing cards most likely antedate tarot. It's probably not accurate to say that today's 52-card deck was derived from tarot. (See Decker/Depaulis/Dummett, preface p. ix.)

Although exact details of the origin of tarot are not available, it most likely originated in Italy around the early 1400s. Cartomancy in western Europe doesn't appear to have been popular until long after that; tarot was mainly a game for some time before it was popular for fortune-telling. (See Decker/Depaulis/Dummett, p. 47.)

Cards can be used as a projective test--as an ambiguous stimulus. Our minds often languish in iterative thought patterns, and a tool of divination can be used as a jolt to suggest other approaches to the matter at hand, as suggested by the I Ching's subtitle ("The Book of Changes"). Of course, many users of divination tools don't see it this way at all, and instead impute fantastic powers to their tools.

Tom Ace

reply: I don't doubt that cards, sticks or ink blots can be used as a projective test. Nor do I doubt that such items could be used to jolt the imagination. I just think there are better ways to go about the task of understanding and stimulating ourselves.



[tarot](#)

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[testimonials](#)

The letters posted here are testimonials themselves. They commit the usual fallacies of testimonials: the [post hoc fallacy](#), the *non sequitur*, and the [argument to ignorance](#).

reader comments:

testimonials

16 Oct 2000

i read your "analysis" of homeopathic medicine, weak my friend, you represent every close-minded narrow thinking american in this hallowed land, and we wonder why the rest of the world can't stand us, may be it is because we have attitudes like yours, homeopathy works, it is not pseudo, it is not placebo, i spent a year searching for what ailed me, i went to allopathic doctors who kept pumping me with chemicals, finally i went to a homeopath, who understood my disease, and healed my body, i am not saying traditional medicine is no good, there are wonderful medicines, and techniques available today, i am saying there is more to healing than what your pharmaceutical companies want you to know, how else are they going to get rich, learn the history sir and pull the wool from over your eyes, there is more to life than antibiotics, and antihistamines, and steroids, and decongestants, and all other toxins we put into our bodies in our lifetime,

larry montgomery

reply: Just because doctors couldn't cure you and you feel good now, after going to a homeopath, doesn't mean homeopathy works.

17 Oct 2000

This is to inform you that though you may very well be entitled to your opinion, so are all the other folks in the world. Just browsing through your pages has not interested me to finish reading everything (although I know I should and some day I might). I'd rather put my faith in God first and therapist who care about humans as a whole person, than see a doctor who only cares about kick backs from a drug company and all the riches it may bring. Riches that I might add, does not last forever and does not bring happiness. I have seen my mother die of cancer. The process took over 18 months. The hospitals poked and jabbed her with needles and probes until she couldn't take it anymore. They offered no help to heal her in the way she needed. Healing comes from within, not from a pill. I wish that she could have encountered someone who could have healed her emotionally and spiritually, even though she knew she was going to die. The healing may not have helped her physically, but it sure would have helped in other ways. I know for a fact that the conventional ways did not help her in any way what so ever. All the treatments she went through only killed her faster than if she would have only taken pain pills that was prescribed to her at the end while she was on hospices. Healing is not about taking away the surfaced problem, it is about

getting to the root of the problem. Most physical pain and it's problems comes from ourselves, we or other people put too much stress on our bodies. Which in turn breaks down the immune system. Therefore, as you already know, causes colds, flu, and disease. The doctors fear that these new (but old) ways may take their place. This is not the case. We as human beings will always need a doctor for something in our lifetime. Progress can be good, only if we use it for the good of ourselves and others. This means not to have temptation for material gains as our motive. As for the therapist who do work with their hands to help others, more power to them . We need more human connection in this world. Look on the bright side, these healers can not poison you while they touch you, unlike the drugs that enter your body. Which, may I add, comes from doctors who like to be called healers. Was that not a term used for doctors long ago????? You may keep your opinions. And may I suggest that if ever you feel out of sorts, which is a sign from your body that it needs to rebalance its self, Give one of these healers a try. What do you have to lose, besides a little money. The doctors take it from us a 100x faster then they do. Anyway you can't take gold and silver with you when you die.

Entitled to my opinion too, thanks for your time.

Kathy

reply: As badly as doctors and hospitals may have treated your mother, it doesn't follow that faith healers are trustworthy.

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[therapeutic touch](#)

reader comments:

therapeutic touch

14 Jun 2000

Your article on Therapeutic Touch shows clearly your arrogant disdain for this healing system you appear to know little about. I have found closed minded skeptics rarely learn anything, how can they? their minds are closed. Case in point, a new instrument has been developed that reveals in great detail the subtle energy field that surrounds all live human beings and indeed all living things. I say live because those dead bodies that were scanned had no energy field around them. If you can squeeze open your mind a few mm and go to www.spiritnetwork.com/indexinsts.html and look at the bottom of an article entitled Human Energy Fields you will find an example of the changes in this field when two pairs of tt hand are placed on the body. This experiment has been repeated many many times in UK. If you were the tt "expert" you claim to be you would have known about this system, it is at the leading edge of energy healing research.

reply: I am aware of this "system" and [have commented on it with disdain.](#)

I don't expect an answer to this email, after all no-one else will see it and if you ignore it you have nothing to lose and your reputation and integrity, what there is of it, remain intact.

*Best regards,
Chris Lovelidge*

reply: I agree that I have disdain for TT and other forms of energy medicine, such as [Ayurvedic medicine](#). I would call my disdain contemptuous, however, rather than arrogant. I do not admire people who are so open-minded that a vacuum is created whenever they speak. Case in point, your article on Human Energy Fields.

I encourage the reader to examine Lovelidge's [article](#). In the first few sentences, we discover that Lovelidge believes that thousands of years ago in India there were special people ("sensitives") who discovered energy fields known as [chakras](#) and that a modern [homeopath](#) in England ([Harry Oldfield](#)) can measure these energies with his invention called Polycontrast Interface Photography (PIP). Mr. Oldfield is also the inventor of [electrocrystal therapy](#), which allegedly diagnoses and heals diseases by stimulating [crystals](#) with high frequency electro-magnetic waves. His theory seems to be based on some sort of [sympathetic magic](#),

e.g., low frequencies are calming and high frequencies are stimulating. He thinks cancer is a low energy state and should be treated with high frequencies, while pain is a high energy state and should be treated with low frequencies. He claims he has proof that this electrocrystal therapy works, but his evidence seems to consist of [testimonials](#).

Oldfield was also an early believer in the diagnostic utility of [Kirlian photography](#), but has now moved on to the invention which Lovelidge thinks is proof that [chi](#) or [spirits](#) can be measured and that energy medicine is truly scientific. PIP uses a digital video camera and a computer to generate colorful images of people, plants, doorknobs, whatever. People like Oldfield and Lovelidge think these images reveal chakras, diseases, healing, etc. Look at the images from [Oldfield](#) or from another [Oldfield follower Mark Lester](#) or at [Lovelidge's](#) own images and you will see that they bear an uncanny resemblance to thermographic images. The images do reveal different energies, but they are electromagnetic, not chakras.

Tim Boettcher looked at Lester's images and wrote:

I examined the the photographs of Chakras ... and I noticed that the walls of the room and the chair seem to have their own energy fields, very similar to those of humans. This raises some questions:

- o Does that mean that these inanimate objects are alive?*
- o Was the red congestion of the patient in picture one transferred to the back of the chair in picture three?*
- o Does the chair feel congested?*
- o Should we form a Society for the Prevention of Cruelty to Chairs?*
- o How come the Chakras disappear right at his underwear line?*
- o Would "The Congested Chairs" be a good name for a rock band?*

If I didn't know better I'd think they were measuring minute differences in temperature.

Apparently, Tim does not take this stuff as seriously as Mr. Lester, who, in addition to PIP, also practices "[Electro-crystal therapy](#), [Rife treatment](#), [Bowen technique](#), Nutrition [??], [Remedial Massage](#) and [Oxygen/Ozone Therapy](#)."* He is quite the multi-tasker. He, like many other "alternative" scientists, is quite fond of quoting Schopenhauer: "All truth passes through 3 stages: First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident." He's

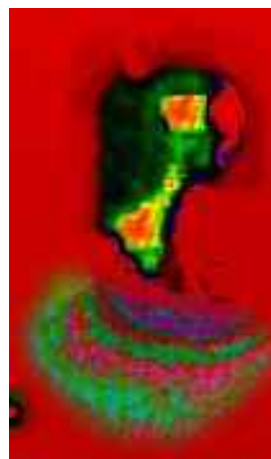
forgotten the fourth stage, however. "Fourth, while the rest of the world recognizes that it wasn't truth at all, pseudoscientists open a clinic or write a book based upon it."

I recently visited the [Exploratorium](#) in San Francisco and went through an exhibition called [Revealing Bodies](#). There were several exhibits demonstrating the application of technology to understanding health and disease, but no mention was made of Mr. Oldfield's invention. There was, however, one exhibit which seems to be very similar to PIP. A video camera films visitors and projects large images on a screen. The images look very similar to those Oldfield and Lovelidge think are images of chakras. I suppose I was misled by the stupid scientists who put together the exhibition. They think the images depict different light and heat frequencies, not chakras! What a bunch of dummies!

According to Lovelidge, in PIP photos

....chakras are visible in various detail depending on the subject's mental and physical condition. Also visible are the meridians used by acupuncturists.

The evidence for these claims seems to be intuitive. I have juxtaposed two images below, one is a PIP image and the other is a thermographic image of termites at work in somebody's house. Use your intuition to determine which is which and who has the better chakras.



Lovelidge seems to have an unquenchable gusto for gullibility. He seems to believe everything Oldfield claims, though Oldfield has published nothing of note in any reputable journal and is only taken seriously by people ignorant of the known laws of physics and the dynamics of various types of photography and imaging. (Lovelidge even admires Brazilians for performing exorcisms on the mentally ill!) His greatest gullibility is revealed, however, in accepting at face value Oldfield's claim that he has photographed "discarnate energy forms", i.e., [ghosts](#), in graveyards and elsewhere. His article on Human Energy Fields concludes with the

following:

I am involved with a local group who will be undertaking further research into the nature of the human energy field and one of the first experiments will be to scan an animal as it is being euthanized. We expect to see the animal's energy field leave its body as it dies. In following on from that I leave readers with a question to ponder. If an energy field can be observed leaving a human body during its last moments of physical life- are we watching the human soul? Only more thorough and complete research will help us to answer. Watch this space.

I have no doubt that Chris and friends will indeed see what they are looking for. They'll even have the pictures to prove scientifically that animals have souls. And, if we watch this space long enough we may even see God looking back at us.

I'll conclude by sharing an image that seems to show two souls flying away in the upper left. Two people died within seconds of taking this photo, one in Hong Kong and the other in Dallas, Texas. Could these be their discarnate energy forms? Notice the escaping energy from the head of the fourth person from the right. Could this be the first photo of an unfelt OBE? And where's Waldo?



If the reader is truly interested in medical imaging, I suggest looking at [Medical Imaging Resources](#).

01 Dec 1997

I am sure your efforts to provide an alternative view to some ideas and topics which seem to be silly or untrue to you will provide some entertaining reading for people after many of the subjects you ridicule are proven to be true to everyone's satisfaction.

I read part of your comments on Therapeutic Touch (which I believe is a specific school of hands-on healing, not a phrase which can be applied to an entire school of thought about healing) and would like to recommend to you

that you do some further research on this topic. I particularly recommend the study of a particular art known as [Quantum Touch](#). I believe its founder, [Richard Gordon](#), can be reached at rgordon@scruznet.net.

reply: Mr. Gordon is a very interesting character. He also has a video out on [how to read Tarot cards](#). He is a true renaissance man.

I also recommend examining the art of Shinkiko, a Japanese healing art. You can reach the Ki Science Institute, which teaches Shinkiko, at harmonyki@worldnet.att.net. I believe that either of these practices could provide for you the proof you clearly need.

reply: Shinkiko is the Japanese version of Chinese healing by manipulating [ch'i](#).

"{Shinkiko (true ki) Energy Flow, true ki energy flow}: Allegedly the ultimate "healing art" from Japan. Shinkiko is an "intuitive medical science" founded by Masato Nakagawa, Ph.D. Somewhat similar to Qigong, it purportedly involves application of "Shin-ki" ("healing-energy"). Supposedly, Shinkiko "therapists" can tap a "limitless universal energy source." The Japanese word "shin" refers to an alleged soul-like "divine spirit." ("Kiko" means Qigong.)"[\[Jack Raso\]](#)

I don't think that Shinkiko will provide me with any more proof than [Qi Gong](#) does.

Or, you could wait until you get cancer, AIDS, leukemia, radiation poisoning, a broken bone, sciatica, pneumonia, etc., before you try it out. If you, yourself, are healed of a serious ailment, that should knock your intellectual socks off. Remember, the healer assists, but it is the patient who does the true healing, internally. If you can do it, anyone can!

**Mrs. Tamarleigh Lippegrenfell
Harvard-Smithsonian Center for Astrophysics**

reply: Well, I certainly agree with your last statement.



[therapeutic touch](#)



reader comments:

thought field therapy

21 Feb 2000

Thank you for adding TFT to the Skeptic's Dictionary and for linking to my site.

I only have a couple points of clarification:

1) I'm not sure if TFT can be exactly characterized as a cognitive therapy. Callahan doesn't say this at all. I have simply made the observation that TFT contains some techniques that are common in cognitive-behavioral therapy like imaginal exposure and rational responses. However, these techniques are utilized in an apparently incidental way and are not integrated in what would be conceptualized as a cognitive approach. As another example, newer brief psychodynamic therapies employ what looks like CBT techniques but they would never characterize it as such. I also make this assertion because TFT is very reminiscent of EMDR which some say is CBT with eye movements. (Eye movements of course being shown to be superfluous). In any event, saying it's a cognitive therapy may be giving it too much credibility. There is no empirical evidence to support that it works anywhere near as good as other cognitive behavioral approaches.

2) Even though the one web site says that Callahan is a cognitive psychologist he actually has claimed in repeated places (and to me personally) that he has a Ph.D. in clinical psychology from Syracuse.

3) Callahan claims to have told Mary to tap under her eye because is supposedly connected to the stomach energy meridian. This was prompted when Mary complained of stomach discomfort associated with water.

4) He commonly claims even higher success rates than 85%:

*"I had to make further discoveries which increased my success rate from about 3% with that one under the eye treatment to about 98% success today." -
-Callahan (recent email from SSCPnet listserv)*

These are just some minor points but I don't want Callahan to use these trivialities against you in the future.

*Thanks again,
Brandon Gaudiano*



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◀ [Transcendental
Meditation](#)

reader comments:

transcendental meditation

19 Aug 2002

You speak of adherents of Maharishi Mahesh Yogi [in the entry on [levitation](#)] who say they feel lighter than air. I have done the flying sutra and I have felt lighter than air. That was when Maharishi was first introducing his TM Siddhi program. I suppose it must have been in 1977.

Let me try to explain the context. I was a young, serious man concerned about questions like what's it all about? The meaning of Life, The Universe and Everything. Stuff like that. And then there was a strange concatenation of circumstances. A friend of mine, generally level-headed, told me that he was thinking of trying TM because his University room-mate was a teacher of it. There was an article in the Guardian (a fairly well respected Brit Newspaper) to the effect that someone had shown that doing TM did something physiologically, and another friend of mine invited me to an Introductory Talk.

So I went, and since my attempts to find answers to the adolescent questions I describe above by thinking about it rationally were not doing very well, I thought I'd try something else, for it did promise enlightenment.

My initiation was a very powerful experience, with physiological results. Every muscle in my body, it seemed, started to twitch, and I felt so At Home. It was very pleasurable, and I dismissed (at the time) the possibility that it was a hypnotic experience, because I hadn't been told about the possibility of muscle twitches.

So I threw myself into it. I was young, idealistic, thought I had found something precious, and wanted to share it.

So after I graduated, I volunteered for Work Study with the TM movement in order to gain credits to become a teacher of TM. I was around the centre of the TM movement for about 2 1/2 years, though I never became a teacher of it.

I put myself in a state of suspended disbelief. At that time, the Maharishi started the TM Siddhi program, I was working in the press, where his pamphlets and posters, etc. were printed. We were getting pictures to print which purported to show people flying, moving along for perhaps 20 feet,

about six inches from the ground. We at the press got very excited by this we didn't imagine that they were taking pictures at the top of successive hops, though they were.

Shortly after that I was initiated into the flying sutra myself, and we used to go and practice it in the Flying Room. Lots of people bouncing around. I didn't take off at all. I was told that I had to help it a bit, which started to ring alarm bells. Now, I look at phenomena like what happens at Toronto Blessings, the Quaking of the Quakers, the Shaking of the Shakers, and see it as the same thing.

But I did, several times, feel Lighter than air. And it felt wonderful. I now view my experiences as being hypnotic. Suggestion can, in my view, be very powerful. I've seen a stage hypnotist make people known to me do very silly things. But adherents of Mararishi (and I am no longer one) DO feel lighter than air. The trouble is that they are not really, and the feelings are illusory.

It is easy for bright, idealistic people to get trapped in all sorts of nonsense, because the experiences they have seem so real. Those people I've seen on TV at evangelical churches falling over and twitching are having very powerful experiences, as are those who think they can fly because they use one of Patanjali's yoga sutras.

David Bleines

(who found his mystical time an interesting experience, but is glad to be out of it)

20 Jan 1997

There are many very legitimate reasons to criticize the TM organization and to question its hyperbole. As an independent 21-year practitioner of TM, I'm frequently dismayed by the movement's antics, but not anywhere near as dismayed as I am delighted by the results of TM in my life. Whatever the movement's questionable behavior, I've found practice of the techniques to be more than worthwhile.

I guess it takes more objectivity than most people can muster to separate the issue of the potential usefulness of some specific approach or practice from the issue of the reliability of those who promote it. Just as it's possible, as you suggest, for a person of apparent integrity to be cynically deceptive or deluded, it's also entirely possible for someone whose integrity you suspect to be promoting something of genuine value. It would be a shame to dismiss a potentially useful modality out of hand simply because you don't trust the promoter.

Where TM--or any group or movement that has a significant "anti" faction--is

concerned, I would suggest consulting with an informed current member of the group (preferably one who, like myself, is not a "True Believer" and at least makes an attempt to be objective) before swallowing whole what the "anti" faction provides, and then doing some independent checking of your own about points of factual disagreement. That should help weed out illegitimate or inaccurate criticism and will make your reporting much more useful.

Hard-core skeptics will uncritically accept whatever you tell them. True believers will uncritically reject whatever you tell them. It's the group in between you are most likely to be able to influence, but if you appear to be as biased negatively as the True Believers are positively, you'll have less of a chance of reaching them. That's why accuracy and fairness are so important to your effort.

Judy Stein

12 Jun 1997

I like your Skeptic's Dictionary, it's interesting and fun to read. Today I read your entry on Transcendental Meditation (which I used to practice myself for a few years), and I'd like to make two particular comments on it:

1. One thing you do not mention that is typical of sects like the TM movement: They're after people's money. They offer series of courses (as well as the health and beauty products you do mention) and a number of other things at greatly exaggerated prices. You may want to point this out more clearly.

2. I think you are in danger of disparaging meditation in general. There are a number of techniques designed for relaxation and stress relief only; they do not cost a lot of money, they have no religion attached etc. If you referred to such approaches in contrast to TM, this might help avoid misunderstandings.

Holger Maertens

reply: You are right about the benefits of non-religious meditation. Too many people in our society think that relaxation means having an alcoholic beverage, smoking a joint or snorting some cocaine while watching television or a movie. I prefer napping, but meditation is a good way to relax for some people.



[Transcendental Meditation](#)



trepanation

"A genius is one to whom the knowledge of the difference between yes and no is innate."

-- Dr. Bart Huges



Trepanation is the process of cutting a hole in the skull. According to [John Verano](#), a professor of anthropology at Tulane University, trepanation is the oldest surgical practice and is still performed ceremonially by some African tribes. A trepanned skull found in France was dated at about 5,000 BCE. About 1,000 trepanned skulls from Peru and Bolivia date from 500 B.C.E. to the 16th century.*

Bart Huges (b. 1934), a medical school graduate who has never practiced medicine except for a bit of self-surgery, believes that trepanation is the way to higher consciousness. He wanted to be a psychiatrist but failed the obstetrics exam and so never went into practice. So [he says](#). In 1965, after years of experimentation with LSD, cannabis and other drugs, Dr. Huges realized that the way to enlightenment was by boring a hole in his skull. He used an electric drill, a scalpel, and a hypodermic needle (to administer a local anesthetic). The operation took him 45 minutes. How does it feel to be enlightened? "I feel like I did when I was 14," says Huges.

What led Dr. Huges to believe that trepanation would lead to enlightenment? His first insight came when he was taught that he could get high by standing on his head. He came to believe that by permanently relieving pressure he could increase the flow of blood to the brain and achieve his goal. After he took a little mescaline he soon understood what was going on. "I recognized that the expanded consciousness was attributed to an increase in the volume of blood to the brain." How has such a simple fact eluded scientists and mystics alike for so many millennia?

In the past, trepanation was used either to relieve pressure on the brain caused by disease or trauma, or to release evil spirits. The former is still an accepted medical procedure. The latter has died out in those parts of the world where scientific understanding has replaced belief in invading demons. Huges has yet to command a large following of trepanners, but he has managed to attract a few supporters with holes in their heads. One of his most illustrious pupils was [Amanda Fielding](#) from Oxford, England, who not only lived

through the filming of her self-surgery but also became a candidate for Parliament. She received 40 votes from the people of Chelsea in 1978 where she ran on the promise of free trepanation from the National Health Service.

Feilding maintains that having a hole in her head allows more oxygen to reach her brain and helps expand her consciousness. It's safer than LSD, she says, apparently convinced those are her only two options to expand her consciousness. She claims she now has more energy and inspiration, and is on a "permanent natural 'high'." She claims the trepanned are "better prepared to fight neurosis and depression and less likely to become prone to alcoholism and drug addiction."* One could say that she is very open-minded.



further reading

- [A Hole in the Head](#)
- [Trepanation Page](#) (includes an interview with Bart)
- [THE PEOPLE WITH HOLES IN THEIR HEADS](#) From *Eccentric Lives & Peculiar Notions* by John Michell
- [Cutting the Cranium Skull Surgery Goes Back Millennia and Makes a Comeback](#)
- [The Trepanation Links Page](#)
- [The Trepanation Trust](#)
- [PATHOLOGIES OF THE BOG BODIES](#)

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[transubstantiation](#)

[true believer syndrome](#)



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reader comments:

Urantia

17 May 1999

I recently found your website and have enjoyed most of it. Concerning the entry on Noah's Ark, I found it to be very informative, though I disagree with the findings.

reply: I know, I'm right about everything except this one thing that you happen to know is true. I've heard this for almost every entry.

My reason for writing you concerns the Urantia entry, or more specifically, a reader response to it. I do not understand why celebrities (Elvis, Janis Joplin, Jackie Gleason) are always mentioned in causes/movements like Urantia, As if their adherence actually gives the movement more credibility. Unfortunately, there are many people in the world who do think that something must be true if a celebrity believes it as well. So what if Elvis read the Urantia? Everything I've read on Elvis points to the fact that he read LOTS of different things on all sorts of metaphysical subjects due to major insecurities in his life.

Incidentally, Kerry Livgren, of 1970's band 'Kansas' fame, was a Urantia believer for about a year, before he became an evangelical Christian. What are ordinary believers supposed to do when a celebrity renounces his or her belief in the Urantia?

Doug Hugo

reply: They should renounce Satan and buy a copy of the [Demon Haunted World!](#)

02 Mar 1999

For your information --- I had a lengthy relationship with Gardner during the preparation phase of his Urantia: The Great Cult Mystery. Exchanged more than forty letters. Visited in his home.

Perhaps you would like to know more.

Visit my web site at <http://www.world-destiny.org>

There you will find much material on the origin of the Urantia Papers never before published, and background on William Sadler.

To say that Gardner was biased would be an understatement.

Ernest (Moyers)

reply: I am pleased to refer readers to your clearly "unbiased" materials.

05 Jan 1999

You have a wonderful site, I've enjoyed browsing and agree with you about 95% of the time.

I was a born skeptic...early on in the small group who argued the implausibility of the Bible in classroom discussions. In college, I found many more free-thinkers. But 25 years ago I felt I had to prove the Urantia Book was bogus because someone close to me, who is quite bright, said it was true, and I just knew it couldn't be....all religions were actually very similar and crutches for illogically minded people.

Two years, and a ton of reading & research later....I realized it was true, and that the reason all religions had so much in common is that they have common evolutionary roots. The differences are in the dogma...and some of the dogma is pretty crappy. This book, however, is PACKED with logical science, history, and soul-satisfying inspiration. No conflict here with evolution. At least read Paper 100 and the last paper.

I've met over 500 people who are involved with this book, including Norman Lear (Jewish), Buffy St. Marie (Native American), many clergy people (typically liberal traditions, but including Baptists and Catholics), dozens of teachers (I teach math right here in Sacramento!)...Mo Segal (of Celestial Seasoning's Tea...see the connection?), and a whopping percentage of scientists and computer people. Of course, there is the wacko group in Sedona...anything like this will attract egoists. Many more of the big names in Rock & Roll than you might realize are/were dedicated readers including Elvis, Jerry Garcia, Moody Blues, Spirit, Janis Joplin, and many others. Jackie Gleason was really into this book.

Over 350,000 books have been sold since 1955. I know over a dozen people who knew Sadler; he was not a fake, nor a liar. His experiences were unimaginable, but there is no reason at all for him to make this stuff up. Financially, it was far better off not being involved. Harold Sherman, on the other hand was very unstable. He is the one passing off lies and the only reason Gardner believes his stories is that it supports his skeptical arguments. Sherman was one in favor of all kinds of traditional channeling and nonsense. Martin G. did not read the UB through, it is very clear from his sloppy analysis.

He did do some good research, but there are many web-references with good critiques of his work. I am close friends with many of the people he refers to and he has got his facts wrong at least as often as he got them right.

Do your own analysis of the Urantia Papers, I challenge you, as I did, by reading them and comparing them with scientific, historical, and other research.

You'll find a gem like no other.

I've been a reader for 25 years...half my life.

No need to respond....just FYI.

Claudia Ayers

reply: There may be no need to respond, but your mentioning of Jackie Gleason (also "a gem like no other") brought back fond memories of my childhood. Did Art Carney introduce Gleason to the UB? Perhaps they read the Croatian translation together in-between alcoholic stupors. I suppose it was good enough for Elvis and Janis Joplin, the world should take notice.

Oct 1996

*I've been reading your **Skeptic's Dictionary** and I like most of what I read. I have to ask you, though: the **Urantia Book** was "allegedly" channeled by William Kellogg??!!*

*I've been reading the **Urantia Book** for 15 years and I have NEVER heard that claim made before! Did Martin Gardner make that claim? And if so, where did he get his information? The identity of the human being who wrote down (and it was NOT channeling, according to Dr. Sadler) the papers of the Urantia Book has never been revealed. Dr. Sadler, I understand, said that he and the others who knew this person had been sworn to secrecy because it was felt that the message of the book itself was more important by far than the person wrote the words down. No human name was to be associated with the book, ever.*

reply: I would imagine that you are not the only reader of the book who has never heard that the Urantia Book was channeled by Wilfred Kellogg. The book itself claims that the Urantia papers "were authorized by high deity authorities and written by numerous supermortal personalities." [\[Origins\]](#) Sadler and his group tried to avoid associating the origin of the Urantia Book with words like *spiritualism* . The word *channeling* was not used in those days, of course. But when you claim that an individual, whom you will not name, wrote a book but the authors were really "supermortal

personalities," then you have claimed the book was channeled in today's New Age terminology. Gardner's research uncovered the author as Wilfred Kellogg. You can read about it in his book and articles, listed below. Of course, Sadler's version differs from Gardner's.

Sadler claims he and other equally brilliant men could not detect any other type of psychic phenomenon except revelation from on high when they examined the "author." Their author was not telepathic, clairvoyant, a spirit medium, nor did he go into trances or do automatic writing. Sadler also declared that his man was not insane (actually he says he did not have a split personality). One thing Sadler and his illuminati seem to have failed to consider was the possibility of fraud. Or maybe they were in on the con. Who knows? In any case, Sadler was right about one thing: focusing on who wrote the book takes attention away from the content of the book. If you are looking for spiritual teachings, apparently this book has plenty of them and many people find these teachings agreeable. For those of us who are no longer on a spiritual quest, such books are mainly of interest because of the Byzantine intrigue surrounding their authorship and the people who would invent such stuff. Gardner himself says: "Why do I waste time on such a pretentious tome? Two reasons: One, the Urantia movement is gaining new recruits. More interestingly, the book's origin is a capital mystery." According to Gardner, Iola Martin and Mrs. Harold Sherman (members of the original Urantia movement in Chicago) revealed to him that Wilfred Kellogg wrote and dictated the Urantia Book. All the sordid details are revealed by Gardner. The one I find most fascinating, though I don't know why, is that Wilfred Kellogg, his wife, Anna Kellogg and Dr. Sadler's wife, Lena Kellogg (Anna's sister), all had the same grandfather, John Preston Kellogg, who was the father of William Keith Kellogg (the Cornflakes king) and Dr. John Kellogg. The latter did battle with Ellen G. White and was excommunicated from the Adventist church.

I also am unaware that there is a separatist 7th Day Adventist cult that uses the Urantia Book's teachings. To say that the book has Adventist teachings is like saying the Bible has Adventist teachings, when actually both books contain teachings used by all manner of religions and belief systems. The religions get their teachings from the books, not vice versa.

reply: As I understand it, Adventists interpret the Bible differently from other Christians, especially in their notions of the Millennium and The New Earth and in accepting the words of Ellen G. White as revelations.

I don't belong to any cult. There are groups of Urantia Book readers who get together and some of them are pretty weird, to my way of thinking, so I don't belong to any groups espousing the Urantia Book's teachings. I find the book's value in what it says and how I can apply those sayings to my own life-not anybody else's. (I add that I was raised a Catholic, left the church at 14, became an atheist and a devotee of Ayn Rand and finally read the Urantia Book 18 years later.)

reply: I guess we could say that you are on the road to Wellville!

There is no organized religion of any kind involved in the reading of the Urantia Book. There are no "thou shalt" or "thou shalt not". There is no guilt. There is no "we've got the answers and we'll only tell you if you give us money". The only money I've spent is on the book itself, and I consider the price worth it.

reply: The fact that you and many other readers of the Urantia Book do not belong to any organized cult or religion does not mean that such a group doesn't exist. According to Gardner, such a group does exist and is growing. On the other hand, he may be using the word 'cult' loosely to refer to the some 50,000 (according to one of the Urantia Websites) who belong to Urantia groups who meet regularly.

I suspect that you have not read the book, as it's over 2000 pages long. I assume you are passing on the information that you found in Gardner's book. I find it hard to believe that Gardner, intelligent man that he is, would so lightly pass off a book by identifying it with an organized religion that really had and has nothing to do with the Urantia Book at all. It almost sounds as if he'd just recently heard about the book and asked someone and they said, "aw, it's some book some crackpot offshoot cult of the 7th Day Adventists uses."

reply: Believe me, it is not the *length* of the Urantia Book which keeps me from poring over its pages. I've probably read over 2,000 pages of Gardner over the years! In any case, you underestimate Gardner and I suspect you haven't read his book on Urantia, either.

I applaud the idea of debunking all the stuff you include in your dictionary. It's a great service. I only ask that you do a little more solid research on the Urantia Book before tossing off such a casual and inaccurate review.

Sharon Carthy

reply: ok. In the future, before tossing off an inaccurate review, I'll do more solid research.



[Urantia](#)



reader comments:

urine therapy

14 Mar 2003

I wanted to call your attention to the quote from Proverbs on the page on urine therapy. With the quote on its own, it would seem to imply that the particular proverb is suggesting one drink one's own urine. However, while this passage is clearly a metaphor and not talking about literal cisterns, it appears in the midst of a lengthy passage elaborating on exactly why "thou shalt not commit adultery." Given the context, it seems far more likely that this passage's intent is closer to, "Don't dip your wick in your neighbor's well." There are, however, some passages in the Bible that clearly and unequivocally refer to drinking urine. This generally seems to be an act of desperation due to a shortage of water, as often happened during sieges. For example, in Isaiah 36:12, an Assyrian officer yells at the people of Jerusalem that he will force them to drink their own piss (that's really the word used in the King James Version) if they do not surrender.

Matt Cramer

06 Mar 2003

One minor little, but rather common, mistake in your presentation: human urine as produced by the kidneys and freshly voided does not contain ammonia (the urine of some other species does). However, if human urine is exposed to air for any length of time, airborne bacteria will break down some of the urea into ammonia. So it's only "stale" urine that contains ammonia.

Eric Bohlman

28 May 2002

Although this comment comes late, I feel I must point out that there are in fact scientific studies supporting the efficacy of urine therapy. I have included a link, with the conclusion of the paper excerpted (in case the link does not work). I have been in the field of immunotherapy for the past eight years, and prior to that I was pursuing a Master's degree in Molecular Biology and Immunology. The company that currently employs me manufactures a biologic for the immunotherapy of solid tumors. I manage the manufacturing department. I am also enrolled in a natural healing school, and urine therapy is one of the

*healing methods I am being taught. With my scientific background, I am reluctant to take anyone's good word as proof. I have turned up several studies supporting the use of urine therapy for autoimmune disorders, cancer, and AIDS. As disgusting as it initially appears, there is some evidence to support urine therapy. And with a whole new generation of uncharacterized biologic drugs appearing on the horizon, it seems "science" is coming to believe the same. An excerpt, if the link doesn't work: "Conclusion: Urotherapy is **suggested** as a new kind of immunotherapy for cancer patients. Unlike the clonal immunotherapy the urine of the cancer patients contain the many tumor antigens which constitute the tumor. Oral auto-urotherapy will provide the intestinal lymphatic system the tumor antigens against which they **may** produce antibodies due to non-self recognition. These antibodies **may** be transpierced through the bloodstream and attack the tumor and its cells." [emphasis added]*

Sincerely, Anna Lloyd

reply: Interesting, especially since [immunotherapy](#) treatment for cancer is [controversial](#) and hasn't been especially effective.

If the reader is wondering about the missing link, it wasn't included by Ms. Lloyd. For those who are interested, I have found the article: [UROTHERAPY FOR PATIENTS WITH CANCER](#) by Joseph Eldor, MD, of the Theoretical Medicine Institute P.O.Box 12142, Jerusalem, 91120,Israel. Eldor publishes a [journal](#) "devoted to the evaluation of the 'philosophy of medical explanation'." Eldor is apparently an anesthesiologist who runs the [CSEN](#) Web site devoted to his products, such as a spinal-epidural needle.

One should also read, for comparison, the [Office of Technology Assessment](#) article on [Immuno-Augmentative Therapy](#) (1990) or Dr. Stephen Barrett's [article on the same](#) (1999).

25 May 2000

When I read the article in the Skeptics Dictionary regarding urine therapy, I was uncomfortable when you mentioned the potential salvation by urine in extreme situations. Then I read the March 31, 1998, commenter, and agreed with what he had to say. If one is lost at sea, the LAST thing you want to do is drink seawater. Seawater is about 97% water by weight, and closer to 99% by volume. You suggested urine might not be so bad, seeing as how it's 95% water. You can see my alarm here.

Brian Magnuson

reply: I'm sure some lethal concoctions are 99.9% water. My [sources](#) tell me that seawater is 3.5% salt and that some of the other things in seawater

are animal waste, plant cells, pollutants, rust, etc. How much of urine is water is not as important as how much other stuff is in urine that might be harmful.

18 Feb 2000

I read with interest you article on urine therapy. Many of the points you made are indeed true. I would urge you however to have an open mind.

The next time you cut or burn your hand, try putting some of your own urine on it as soon as possible. Don't just put one drop on but rather soak it for about 15 min. You will find that the pain disappears almost at once, and it heals in about half the time. I don't know why this is, but I strongly suspect that the urea plays an important role. Urea is now used in many high priced skin care products.

From there you take a leap of faith and assume that what works on the outside, works on the inside as well. Is it the placebo effect? Hard to say, except that the placebo effect only works 30% of the time based on FDA studies. If you are still concerned about the placebo effect, try it on a dog or cat when they have an exterior injury, is this the placebo effect?

Bottom line, the wild claims notwithstanding, if it works and will not hurt you, use it.

Keep an open mind.

C. Berger

reply: I'll keep an open mind but consider that urine contains ammonia and ammonia reacts with the skin to cause ammoniacal dermatitis, which, when it occurs on a baby's bottom is known as diaper rash.

29 Jun 1999

I have not participated in any form of urine therapy as yet but have researched it extensively via medical reference materials and periodical articles written by doctors dating back as far as 1947.

Are you a medical doctor or trained homeopath/naturopath? As a self-proclaimed Skeptic, have you tried urine therapy in any form? If so, what were the results, if any? If not, why; since it is clear that there is little or no risk of side effects in healthy individuals? What is your healthy Skeptisim based on? Is there any medical evidence by documented research study or your personal experience that this 5000 year old Practice has little or no therapeutic value? There seems to be a tremendous amount of research on whole human urine and its constituents and their apparent medicinal value. Is your opinion based on

simple "good sense"? If so, "good sense" would seem to be more inclined to support the value of this particular therapy in some cases rather than not. It (urine) appears to be a truly spectacular healing agent whose value had been forgotten once medical technology developed more appealing and far more lucrative drug products.

reply: No I have not tried urine therapy, nor have I tried [trepanation](#). That's ancient, too, and advocated by a medical doctor. You might like it. Seriously, what is this medical evidence you speak so highly of? I hope you aren't referring to the testimonials of an Indian premier who lived to be a hundred and drank a cup of his own pee every morning or the fellow whose foot got better after two weeks of wrapping in a cloth soaked in his own urine?

You mentioned the placebo effect. If it is true that the placebo effect really exists and is the reason for some patients seemingly miraculous and "non-scientifically verifiable" recovery, would not the converse be true as well? A patient treated by conventional, scientifically tested and approved methods could very well not respond because that particular patient decided that the prescribed therapy simply would not work? How the do you explain all those patients that have been cured by unwanted medical procedures? And if that is true, would not all therapies, conventional and alternative, be effective in direct proportion to the patient's own belief as to the effectiveness of that therapy? If medical doctors have rediscovered the use of leaches in some situations, is it not possible that medical science may (and already has in some cases) rediscover the medicinal value of the long known but overlooked practice of auto urine therapy?

reply: The [placebo effect](#) is well established, but it is clearly not as simple as you have framed it. The placebo effect is not an effect that is in direct proportion to the strength of one's belief. Some suggestible people might feel tipsy when drinking a non-alcoholic beverage they believe to be alcoholic. But it would be a strange person, indeed, who could drink six glasses of vodka with no inebriating effect as long he believed his beverage was non-alcoholic or that it could not affect him. You raise some interesting questions but I don't see what they have to do with urine therapy. By the way, I don't belittle urine therapy because it is ancient. My comment is that it is very unlikely that the ancient Indians had scientific or health reasons for drinking their own golden fluid.

I say all that to say this:

The art of medicine is just that, an art based in scientific theory and procedures. It is a combination of the intrinsic value of self healing and the power of modern technology and scientific theory and I did not find much more than a hurriedly (Internet) researched opinion in the piece I read on your website. Until we know everything about the human body, any medically ethical

therapy which demonstrates an ability to heal-especially a natural one-should be pursued to see if it in fact could provide an effective and affordable, in this case-free, treatment available to anyone who needs it!

Can you tell that I am skeptical of those who claim to be "professional" Skeptics?

*Best regards,
M.P.*

reply: I can hardly criticize someone for being skeptical. However, I await this "demonstration" of the ability of urine to heal.

31 Mar 1998

Hello. I have been reading and enjoying 'The Skeptic's Dictionary' for some time now. I haven't really felt the urge to comment on anything, but I ran across this statement in your latest entry and I felt I should say something [about the following passage in "Urine Therapy."]

For most people most of the time, one's own urine is not likely to be harmful. However, it is not likely to be healthful or useful except for those rare occasions when one is buried beneath a building or lost at sea for a week or two. In such situations drinking one's own urine might be the difference between life and death. As a daily tonic, there are much tastier ways to introduce healthful products into one's blood stream.

To establish my credentials, I am a biochemistry graduate student. I am in no way an expert on metabolism or nutrition (I actually do enzyme kinetics), nor do I have a textbook handy that addresses this particular subject. However, I believe that drinking one's own urine out of desperation when no source of clean water is available is a serious mistake. Urea, as well as other salts, are diuretics as you mentioned, and cause the body to excrete more water to remove them from the bloodstream. Drinking urine (or sea water, for that matter), does not help you conserve water, it just forces your body to give up more of its water to get rid of the contaminants present in the urine, as well as any other metabolic wastes produced since that earlier urination. In other words, drinking urine only causes you to become dehydrated faster.

I just felt that I should mention this, in case any loyal readers happen to become lost at sea or trapped in a collapsed building, and decide that drinking urine might be an acceptable survival practice because they read it on your web

page.

David Rhode

reply: I used the examples of being buried beneath rubble or lost at sea because those examples are used by the advocates of urine therapy (quoting news stories) to indicate how useful drinking urine can be. My understanding is that the urine is 95% water and the average amount of urea from a healthy person would be about 25 mg a day. Such an amount of urea might be of some assistance in stimulating urination, but as a diuretic it would hardly dehydrate a person, especially if one continues to reuptake the urine. I also understand that most of us could survive for only three to five days without water. Any urologists out there with a third opinion?

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reader comments:

James Van Praagh (George Anderson & John Edward)

15 Apr 2003

I have recently lost my 17 year old son in an automobile accident and in my grief and shock I had somehow fallen into new age spiritualism.

I bought James Van Praagh's book Talking To Heaven and have seen his show and I began to wonder if this was really possible. Then, as I got further along in his book, he mentions his beliefs about people who die in car accidents and people who die of AIDS somehow had a destiny to fulfill and only then did I realize what nonsense all this was.

Fatal Collisions: First, there are no accidents and such accidents are the direct results of the spiritual law of cause and effect, or karma.

AIDS: During sessions with spirits who have passed with this condition, many gave reasons for having to go through this experience. Many have said that they are helping to balance the negative karma on this planet about our wrong way of thinking (gay lifestyle) and behaving towards each other.

I really doubted my 17 year old son had bad karma or that this was his destiny to die in a fatal car crash. It was an accident. With a little common sense, one could read between the lines of his book to discover his own personal issues with homosexuality and AIDS and how he incorporates that into his work.

I searched his name on the internet and found your article (among others) to be what you could call the real enlightenment, especially the part that this so called phenomena only works because of cold readings and a basic belief system. I had almost bought into spiritualism because I wanted to believe it was true and your article probably saved me a lot of additional grief. I just wanted to thank you for affirming my suspicions with basic facts and principals, which is a lot easier to accept than talking to the dead.

Sincerely,
L. S.

reply: It never occurred to me that Van Praagh might be working out his own neuroses with his messages, but the idea makes a lot of sense. Van Praagh calls himself a "grief counselor" yet some of his notions seem

aimed at causing more grief to the grieving. It is hurtful enough to lose a son or daughter, but then to be told that they got what they deserved is to rub salt into the wound.

16 Jun 2002

I would like to thank you for putting this site on the web.

My son-in-law and daughter are into this psychic medium stuff hook, line and sinker. They recently lost their youngest son, an adorable 5-year-old, to a freak accident. They have buried themselves in George Anderson's books. My son-in-law was recently baptized with his 11-year-old son as a nondenominational Christian. However, since his son's death, he has completely thrown out his religious beliefs for the views of George Anderson, and the touchy, feely, nobody suffers kind of new world in which God has no role to play. Instead of reading books on how to deal with grief, of which there are many excellent ones (I know because I also lost a 23-year-old son in an auto accident), he and my daughter just reads George Anderson over and over. My daughter got in touch with James Van Praagh through his web site and Mr. Van Praagh wants to interview her and my son-in-law on some TV show. When my grandson died, there were no fewer than 15 articles in various newspapers regarding his freaky death of being asphyxiated by getting his head caught between two tree branches. There are also obituaries, so it will be easy for Mr. Van Praagh to get information on our entire family in advance and look like a hero. I feel that Mr. Van Praagh is predator, preying on those who are grieving the most.

I thank you for your web site and hope my daughter and son-in-law come across it and actually look at some of your information as they are surfing the web.

Kathi

3 Aug 1999

Just to add my 2 cents in..... well if you don't want to believe in James then just don't watch or listen.... you must be insane yourself..... this man is for real... believe it or not !! let him talk to one of your relatives [sic] and I guarantee you will believe!!!

god bless

BETONKIM@aol.com

16 Jul 1999

James Van Praagh was profiled recently on 48 HOURS, which aired again on

7/15/99.

Once again, Van Praagh proved the gullible types in this world far outnumber those given to skepticism and reason.

At one point, the talking head presenting the story stopped and asked, to no one in particular, in a incredulous voice, "How can anyone believe this..."? Indeed.

The presentation was even-handed and skeptical and (hallelujah !) resulted in a controlled "reading" wherein Van Praagh would talk to the dead again.

A woman was shipped in from out of state for the reading, which occurred in Van Praagh's 'normal' house: "See, I don't make money from any of this..." Oh, really ?

Van Praagh's usual refrain dominated the exchange, saying things like: "He is here by your side", "He wants you to know he's OK..." and such twaddle.

The Amazing Randi was allowed to review the performance and clearly showed how Van Praagh uses generalized statements (Do you know a John ?) that are true for anyone. Indeed, it is safe to say we all know at least one John in the world. Sad to say, Randi noted, that people want to believe they can settle accounts with the dead and will go to any lengths to live the illusion. Wise words.

Chris Long

13 Jun 1999

It really ticks me off that a person like James Van Praagh can go around doing the crap he does. Why on earth would my dead relatives talk to a total stranger like Mr. Van Praagh, instead of coming straight to me.? That is, if they are able to communicate in the first place.

He is as phony as they come and I really would love to believe he is the real thing, but I know with all my heart he is a phony.

Thank you for letting me speak my mind. I wish I could tell Mr. Vanpraagh myself, but his website is a joke and of course, at this moment , he is not accepting any e-mail because he is on "tour". Yeah, right.

Thank you again.

Sheila Hancks

11 Jun 1999

Van Praagh surfaced on Maury Povich during the week of 6/6/99 - 6/13/99

(Wednesday, I believe) purporting to communicate with deceased loved ones of guests appearing for "closure".

Van Praagh's performance was as silly as it was crude, displaying no ability to divine any information about a deceased relative beyond the usual "cold-reading" technique, which he doesn't even do well.

If the guests had not 'fed' information during Van Praagh's Q&A it was apparent he would have been rendered entirely helpless. After a correct guess (far fewer than incorrect guesses) Van Praagh would make non-specific, generalized statements to which the tearful relatives on Povich's stage would nod and agree.

Incorrect statements by Van Praagh were always followed by the comment "...maybe not now but watch for that - it's coming..." Yeah, right.

Van Praagh is incompetent to counsel and pry into the affairs of emotionally-wrought people with his crude, guessing style that just is not convincing. But Povich was in ascendancy leading choruses of oohs and aahs during the very few correct guesses by Van Praagh.

The show was little more than hype for a new book by Van Praagh and a staged PR exercise. It's sad that entertainment has reached this sort of low, eliciting teary, gut-wrenching personal horrors from devastated people by a clown like Van Praagh for little more than entertainment.

Chris Long

22 Jul 1998

James van Praagh appeared on "Positively Texas" not too long ago...being a big skeptic myself I watched to see how someone so obviously fake could fool so many (I've honed my skills watching people such as Peter Popoff and Robert Tilton).

Anyway, TV seems to be a bad medium for his "product"...the cameras show right up his sleeves. The episode I watched had him doing a reading with a woman who obviously was a believer in Praagh. James starts off doing what's expected...throwing out very general comments and looking for positive feedback. However, because the camera was focused on her and not him, you were able to notice the slight quirks that would spread across her face whenever he mentioned something, quirks that he used to decide which way the reading should go. She'd either crinkle her brow in confusion, or kind of release the tension in her lips as a sign of "whew...there was something I recognize." As she became more and more disgruntled that he wasn't "hitting" on anything, he all the sudden stopped and went a MORE general route:

"Ok, I'm sensing someone...a woman...who has died." James looks at the woman for feedback, which he gets. Eventually he establishes that he's talking about her dead mother and that he can see her dead mother standing right beside her. Already I'm wondering why he couldn't see the dead mother standing beside her before and why he couldn't give a better description other than "she's dead." So, keeping with the general questions, he says: "I'm sensing someone had a heart attack...I see a heart attack." She smiled real big and said "Yes, my cat had a heart attack." James is off and running. "Ok...Your mom is here, she's holding your cat. She wants you to know that your cat is going to be taken care of in the next life."

I'm now wondering why he never saw the cat before: after all, if he can see her mom standing next to her, he should be able to see the cat she's holding. That's basically all her dead mom had to say to her. Not "Time is but an essence of life and the whiskey of the damned. Drink to me tonight." Not "All is just as just is all. A profound experience of you I have dreamt; let me tell you of it..." Not, "The swirls of life coalesce and collide and bind you to the crystals of your empathetic mind. Peace be with you my daughter, I am dancing with the fates." But..."I'm taking care of your cat." If I were dead and I knew I probably had only one chance to talk to my "dearly stuck-in-the-mortal-world," I'd try and come up with something more searching, more important. Not pet arrangements.

However, I now know that when our pets die our ancestors take care of them. Whew...that's a relief. I wonder if that applies to someone with insects as pets. What if someone has a pet rock?

Also, has Van Praagh ever told someone "Your mother still hates you. She wishes you were dead so she could smack you around in the after-life." Are ALL his readings positive? Whew...apparently all our dead relatives have forgiven us for everything.

Van Praagh is so obvious, it's actually painful to see someone swept up by his obvious lack of originality. I personally prefer the woman that channels that 35,000-year-old warrior. At least there you get a floorshow. With Van Praagh you get just about as much as if you'd dialed 1-800-PSYCHIC.

Aaron Nations

25 Sep 98

I had the chance to see James van Praagh on a TV appearance not long ago, and was, quite frankly, astounded that people can believe that he is real. The clip I saw was full of him making vague statements, including some where he managed to say that something was either X or not X. I watched as he pursued several dead-ends, stopping only when the subject showed no recognition of the topics he described.

One part deserves special mention - van Praagh said "...whenever this person died, or 'was killed'..." (single quotes indicated by van Praagh with hand motions). This was the most egregious fishing - he was able to catch both natural deaths, accidental deaths, and murders in this net of a question. All in all, it was a very enlightening example of how well cold-reading can work.

Pete Hardie



[James Van Praagh](#)

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[CAN YOU VASTU?](#)

By MICHAEL
ROVNER

vastu

*Think of vastu as yoga for the home.**

Vastu is India's version of [feng shui](#) (or is feng shui China's version of vastu?). Anyway, vastu goes by many names, including *Vedic architecture*, [Sthapatya Ved](#), [vastu vidya](#), and [vastu shastra](#). But vastu has one goal: to create buildings in harmony with Nature. This will lead to more happiness, but can only be done with the help of [numerology](#) and [astrology](#). One must understand all the planetary influences and numerological connections to the Cosmos in order to have harmony in rooms like the kitchen. If things are done properly, "the meals get cooked better, assimilation improves and frittering of energy gets checked."* Different qualities of [energy](#) are dispersed by different things at different times and if one is not attuned to these changes, one will be out of tune. If your house is not aligned properly, you could get sick. I am fortunate I live in a house whose entrance faces east. Many people in my neighborhood, whose houses face west or south, are more likely to suffer such things as poverty, negativity, lack of success, disease, and of course, anger at being so poor, sick and unsuccessful.

One cannot deny that a poorly designed workspace, kitchen, bathroom or bedroom can cause a lot of stress, but one will search in vain for the scientific evidence that one's kitchen must be in harmony with moon energies or that sickness will befall you if your entrance faces west.



Was it *vastu* or *feng shui* that inspired Danish architect Jørn Utzon's design of the Sydney opera house?

The people who gave America [transcendental meditation](#) and [Ayurvedic medicine](#) are also responsible for giving us vastu: [the people of the Maharishi](#).

They are fond of making such unsubstantiated claims as that *brain physiology is significantly different* when one faces east because neurons fire differently in the thalamus when facing east.* They claim that if we could only build one billion new houses in the proper fashion, we could all live invincibly and in peace and harmony with each other and the universe. They make many claims about the Natural Law (no relation to scientific laws of nature, as far as I can tell), Cosmic Consciousness, the [Maharishi effect](#), yogic [flying](#), [mantra chanting](#), direct links of planets to brain parts, etc. None of these claims have any scientific basis. However, simply because Vastu--this "[holistic design system](#)"--is another bogus philosophy of nature and energy, does not mean that people who claim to be Vedic designers can't produce beautiful and comfortable living quarters. They can, but you don't need a Vedic astrologer to tell you where the sun rises and sets, or what clutter looks like.

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reader comments:

Velikovsky *Worlds in Collision*

23 Dec 2001

I am sure you receive many letters a year ranting about trivialities. I am no different. (I am, however, a graduate student of physics and a moderate believer in the paranormal). I found your article on Immanuel Velikovsky to be quite harsh. I don't intend to rant, so I will be short. Mr. Velikovsky put forward several other books relating to "Worlds in Collision" which did not contain the historical "evidence", namely "Earth in Upheaval" where he presented geological evidence. Furthermore some of his prediction of the atmospheric temperature and composition of Venus are amazingly accurate (especially considering the theories of the day).

As a side note about "manna", last week [scientists discovered](#) a meteor on earth that contained a "sugarlike substance".

I don't think that Mr. Velikovsky deserves to be regarded as "discredited" quite yet.

Merry Christmas!

Jim Cairn

reply: You should read David Morrison's article "Velikovsky at Fifty" in the current issue of *Skeptic* magazine [vol 9, no 1, 2001]. Morrison addresses the materials of people like Lynn Rose, Bargmann, Motz, and Velikovsky himself, who proclaimed the accuracy of some of V's claims. For example, Velikovsky was right that Venus is hot but wrong in how he came to that conclusion. He thought it was because Venus is a recent planet violently ejected from Jupiter and having traveled close to the sun. Venus is hot because of the greenhouse effect, something V. never mentioned. As to the composition of the atmosphere of Venus, V thought it was hydrogen rich with hydrocarbon clouds. NASA put out an erroneous report in 1963 that said Mariner 2 had found evidence of hydrocarbon clouds. In 1973 it was determined that the clouds are made mainly of sulfuric acid particles. V was also right about Jupiter issuing radio emissions, but wrong as to why. He thought it was because of the electrically charged atmosphere brought on by the turbulence created by the expulsion of Venus. The radio emissions, however, are not related to the atmosphere but to "Jupiter's strong magnetic field and the ions trapped within it" (Morrison 65).

There is more, but I refer you to Morrison's article for all the details that justify continuing to treat Dr. V as a pseudoscientist, even if a very interesting one.

See also: ["An Antidote to Velikovskian Delusions"](#) and [A lesson from Velikovsky](#) by Leroy Ellenberger.

21 Dec 2001

In the opening paragraph of "Immanuel Velikovsky's Worlds in Collision" you state that he associates his claims with the myth that Athena (whom Velikovsky identifies with the planet Venus) sprang from the head of Zeus. What troubles me is that, Venus in ancient Greece, was a planet/star that was associated with the Greek goddess Aphrodite (Goddess of love and beauty) and not Athena. In fact, her Roman counterpart was actually named Venus. That being said, I don't understand how he would make this myth supportive of his theory, as he just can't turn around and associate Greek gods/goddesses to whatever planet he pleases.

Jean-Michel Cormier

reply: Geniuses make their own rules.

Just a couple of quibbles about the Velikovsky entry:

Sagan misrepresents Velikovsky who never wrote that the comet and the Earth graze. The comet makes a close approach.

"According to Velikovsky, the comet also caused the Earth to stop rotating."

Velikovsky quotes many ancient texts recording that the movement of the Sun and Moon appeared to stop in the sky. Velikovsky himself says "..there are physical problems.. the actual results of such a slowing down of the angular momentum of rotation would depend on the manner in which it occurred." It was Peter Warlow who showed how the Earth's rotation could be apparently reversed without the Earth stopping, using a similar mechanism to a 'tippe top' (SIS Review, Vol III No 4, Spring 1979, page 100). Even Sagan himself says '..it is easy to see that a gradual deceleration of the Earth's rotation at about $10^{-2}g$ could occur in a period of less than a day.'

"Sagan refutes Velikovsky's claim that Jupiter ejected a comet which became Venus by examining the amount of kinetic energy needed."

Sagan forgets to include in his calculations the rotational speed of Jupiter. Sagan also forgets to include the difference in rotational speed of Jupiter now, and at the time of ejection, which would have caused Jupiter to slow (conservation of angular momentum). Sagan mistakenly uses an escape velocity for an object reaching an orbit extending to infinity, rather than one required to produce an elliptical orbit (71% less). All these factors substantially reduce the energy required.

--Ian Tresman

reply: Now, if we could only harness all the energy used to do these monumental calculations, maybe we could save the world!

20 Nov 1996

On Velikovsky - I support entirely your comments about Velikovsky's lack of scientific rigour. There is no possibility of Venus coming from Jupiter. But if you read Velikovsky - that is only one interpretation of what happened from the accounts he reports. He got it wrong; but don't ignore the evidence, just his interpretation.

A far more logical interpretation to my mind is that a large comet had a close encounter with Jupiter which swung it in our direction. It then came toward earth with a very bright coma. It passed earth close by, and went away (with all reported effects). 52 years later it returned, came past earth and hit Venus. Venus then went from dull to very bright, and has been slowly dimming since.

That is still an awful lot of close encounters in a very short space of time - and is a highly improbable scenario - but sometimes shit happens. It is, at least, consistent with the laws of physics as we know them, and with reported phenomena.

Worth a thought perhaps ?

Ted Howard

New Zealand

reply: Worth a thought, perhaps, but it has little to do with Velikovsky. David Morrison read my original comments and showed me the error of my ways. He writes:

Velikovsky focuses narrowly on encounters between the Earth and planets -- Mars and Venus. While he refers to Venus being accompanied by debris, the dominant agents of his catastrophes are tidal, chemical, and electrical interactions between planets, not meteoritic impacts. Remarkably, Velikovsky did not even accept (let alone

predict) that the lunar craters are the result of impacts -- rather, he ascribed them to lava "bubbles" and to electric discharges. I see nothing in his vision that relates to our current understanding of interplanetary debris and the role of impacts in geological and biological evolution. I conclude that Velikovsky was fundamentally wrong in both his vision of planetary collisions (or near collisions) and in his failure to recognize the role of smaller impacts and collisions in solar system history.

Morrison's article "Velikovsky at Fifty" is published in *Skeptic* magazine [vol 9, no 1, 2001]. Morrison argues that Velikovsky is being given way too much credit for influencing or being ahead of his time on the issue of catastrophism. He writes

In preparing my *Skeptic* article "Velikovsky at 50" I corresponded with 25 leading contemporary scientists who have played a significant role in the development of this "new catastrophism" to ask what influence, if any, Velikovsky had on their work. The statements of these scientists indicate that none of them saw any value in Velikovsky's theories, and that Velikovsky's reputation sometimes impeded acceptance of their own work, or at least was an irritant when they described their work to the public. I was also struck by how easily these scientists (by their own report) rejected Velikovsky. Note that these are not conservative, ivory-tower academics, constitutionally prejudiced against new ideas. They have been among the most creative and revolutionary researchers in their fields. Like all successful research scientists, however, they are used to making quick judgments concerning which evidence is more likely to be accurate and relevant, which research directions more promising. This quick judgment against Velikovsky by scientists separates these academics from those who wished (or still wish) to give Velikovsky the benefit of the doubt, to look for some lasting value in his work. The supporting material, with quotes from these scientists, appears in my article in *Skeptic* 9:1:62 (2001).

Morrison's article will also be published in *Skeptic: Encyclopedia of Pseudoscience*, edited by Michael Shermer, due out in August 2002. The price will be \$185, according to Amazon.com.

25 Nov 1996

Regarding Velikovsky, the slant given the article was that Velikovsky's work is

religious in nature and that Sagan sets Velikovsky's theories in order and mostly discredits them.

Sagan's forays on Velikovsky would indicate some degree of professional jealousy to anyone familiar with the works of Velikovsky. Sagan certainly was not professional with his demonstrations against Velikovsky on Educational Television and neither were you on your article in the Skeptic's Dictionary on Velikovsky.

reply: Thank you. I missed the "unprofessional" Sagan but I feel I am in good company.

Before rendering an opinion on anyone's work, including Velikovsky, it would be wise to consider all the person's work and not form an opinion on a skimmed-over reading of that person's most controversial book. Anyone reading Velikovsky to ascertain if he were or not "religious" would find the time wasted. Velikovsky was meticulous to avoid any tone of a religious nature and was constantly using literature from all corners of the world to indicate points for consideration. He was careful to avoid stating a personal view, probably realizing the resistance his works would meet and knowing there would be persistent critiques of himself and his work because he happened to be a Russian Jew.

Velikovsky never did refer to the New Testament of the Bible. He did refer to certain writings of the Old Testament wherever pertinent but never where it did not parallel other writings from outside the religious arena unless you want to consider some of his references to Indian and Chinese writings where some of those writings are religiously revered.

Velikovsky's Worlds in Collision was not critiqued on anything except for those few areas where he used the Old Testament to indicate a corroboration of other writings. Neither did you refer to his many other works. I must conclude that you are mostly careful to discredit anyone who uses any part of the Bible in their works. You appear critical of anyone who would dare use what is universally considered good history by anyone who has the credentials to evaluate ancient writings.

reply: You are correct here, Robert, and so I have revised my entry on Velikovsky to indicate that I don't have a clue what his motivations are. But you are correct. He is an equal opportunity mythologist and pseudohistorian

Anyone who would read Velikovsky Reconsidered from the University of [the State of] Washington's magazine Pensée would see the railroading job done on Velikovsky and it would appear that you are also on that train.

Instead of reviewing Velikovsky, you found someone who has been extremely

critical of Velikovsky to do your dirty work for you. However, you have brought your own expertise into question along with the Skeptic's Dictionary itself. The first premise of the Skeptic's Dictionary is "The only thing infinite is our capacity for self-deception" and you have apparently written your own epitaph. Instead of a question, it's a statement that aptly describes your situation, taking the article on Velikovsky as a gauge.

When you read Velikovsky's works, read them all and try to read the works which are referenced. Several times in Velikovsky's works, he mentions that what he's writing is not provable but is an indication from several sources. By implying in the article that Velikovsky's sole source is the Bible paints an erroneous view of his work and in turn, it paints a pretty clear picture of YOUR mindset.

reply: You should have stopped while you were ahead, Robert. Now you are getting away from good argument into the realm of ad hominem attack, not to mention being self-refuting. (If you were consistent, you would judge the *Skeptic's Dictionary* by all its entries, not just this one.) This is not befitting a scholar of your magnitude. And while I agree that one should judge a person by all his work, not just part of it, I don't claim to judge Velikovsky. My scope is limited to his *World's in Collision*. For me, that is enough of this type of "scholarship" for several lifetimes.

Velikovsky had impeccable credentials and was a close friend of Einstein at Princeton. Also being aware of intercollegiate jealousy, I cannot but come to some pretty low conclusions for professionalism for some quarters at Cornell and UC Davis.

reply: A close friend of Einstein's, you say. Well, you've got me there. I can't compete on the genius-friends level. Did you know Einstein, too? I think Sagan knows some pretty smart people, too, at Cornell and other places. By the way, I assume you meant to revile my college when you referred to UC Davis, but I have never been employed there.

Dictionaries do not editorialize. Dictionary editors mark their work for posterity if the information is incorrect or slanted toward error. These are simple and basic foundations for this kind of editor and I'm frankly surprised to find your bias and prejudice has so influenced your work. All your work must now be cautiously accepted, if at all.

reply: Are these Robert's rules of order in a chaotic universe? Anyway, I've recently changed the title of *The Skeptic's Dictionary* to

**The Skeptic's Dictionary :
wherein are defined occult, paranormal, supernatural and
pseudoscientific terms
with references whereby readers may arm themselves against the forces**

**of unreason
with occasional biased comments by the author**

I hope you like the new title, even if you don't like the book.

Instead of marking Velikovsky as one who tries to bring others to his erroneous ideology, I must come to the same conclusion with you and your school. Truth is not something to be accepted merely because it is in print. Checking the related documents brings Velikovsky clearly into the foreground of original thought which may not be totally correct, by his own admission, but his data was proposed more as "possibility" than fact, along with many other documents that seem to say the same thing or something very similar. Nothing more!

reply: Wow! I must have hit your v-spot or something. This stuff's really got you excited. My school? What are you talking about? You're not going to generalize to all skeptics on the basis of one article by one skeptic, are you? As to Velikovsky's originality, I've never denied it. As to his proposing improbable or merely possible things as tentative, I have to disagree. He frequently uses expressions of certitude, such as "must have" and "can only be explained by." Where is the tentativeness in this: "The birth of Pallas Athene on her first visit to earth was the cause of a cosmic disturbance, and the memory of that catastrophe was "a day of wrath in all the calendars of ancient Chaldea." [p. 181]

It's significant that pseudo-scientists react so violently to ideas that they feel are counter to what they consider to be common knowledge. Where you should desire credibility, you should also desire recognition from those who check out the data and know it to be true or credible, at least. The Skeptic's Dictionary is much more than what the title would lead readers to believe but the "more" is not something you cannot use to bolster your pride.

**Bob Lunsford
Sacramento**

reply: I assume you meant that as an insult. I'll interpret it that way, though I admit I could be wrong.

10 Sep 1997

Yesterday Bob Kobres e-mailed me a copy of your write up of Worlds in Collision. My first inclination was to thank you for linking to my SKEPTIC article and to tell you, on the basis of my cursory skimming, what a nice essay you put together. After reading it last night, however, I wish to bring to your attention some problems I believe exist with this discussion.

Although I agree that it is not a bad job, it could with little extra effort be a

*very good treatment. As it stands, Lynn Rose, Lew Greenberg, Irving Wolfe and Charles Ginenthal, for starters, could have a field day with your essay, similar to what was done to Sagan in "Sagan and Velikovsky". I would not go to the obsessive lengths Ginenthal et al. have done recently in the two new books you mention in your text; but I do wish to share with you my major reservations. For background, Sagan's analysis of WiC was not composed with the goal of showing supporters why Velikovsky is wrong; but, rather, with showing an uninformed reader (someone who had not read what V wrote) how crazy the book is. I say this because the AAAS session in 1974 was convened due to the popular support for Velikovsky that *Pensee* magazine had stirred up and that series of issues had developed a basis of support for Velikovsky that Sagan essentially ignored, besides the fact that in large part he criticized a straw man of his own making. For example, a close reading of the book shows that Velikovsky was not writing about grazing collisions; yet that was what Sagan examined in his Appendix 1 (see Kogan's letter in Sept. 1980 *Physics Today*, e.g., on this point).*

*Most, if not all, of Sagan's errors were exposed in 1977 in *KRONOS III:2*, sold under the title "Velikovsky and Establishment Science" (even still). You can imagine my surprise several years ago searching the stacks here at Wash. Univ. in St. Louis for a book and see this title staring back at me on level three! Anyway, for all its deficiencies, this volume pins Sagan on many errors and contains Velikovsky's own (partial) rebuttal to Sagan. You cite both *Scientists Confront Velikovsky* (containing Sagan's analysis) and the revised version in *Broca's Brain* and cite the latter in your essay. Some day, compare the texts of the two versions and you'll find many differences. For example, on the escape velocity from Jupiter, Sagan first used 70 km/sec, which was changed to 60 km/sec for *Broca's Brain*. Curiously, 70 km/sec is the value Lloyd Motz used in April 1967 Yale Scientific exchange with Velikovsky (and V corrected Motz at that time), but Carl did not pick up on this. Basically, at the time there was a rebuttal to Sagan's treatment of escape from Jupiter, using the technical literature, but Sagan never dealt with it. Yeah, Sagan and company dealt only with what V wrote, ignoring a large body of secondary material by V's defenders that seemed to people like me that V could be defended on valid grounds. The fact that most of this secondary material was flawed was never pointed out by Sagan and the other AAAS speakers, and later by other commentators, such as George Abell, etc. So, many of the points you choose to highlight have further elaboration beyond the simple case Sagan dealt with.*

The most serious issue I think you should deal with is the notion that Velikovsky took the Bible to be the literal truth, etc. One of the reasons I felt Velikovsky was credible (at the time) was the fact that I recognized that he DID NOT take such texts as the literal truth. It was clear to me that he accepted a realistic underpinning of certain "miracles" and discounted the fantastic aspects as an later elaboration to what was originally a real event. Thus with manna, V gave this credence because it was supported by manna-like accounts from other cultures, e.g., the ambrosia of the Greeks, etc. V

rejected the notion that manna did not fall on the seventh day precisely because it was so unrealistic; yet Sagan criticizes V for accepting this aspect (when V specifically rejected it!) This is not honest debate (but it never was a really debate). This issue is discussed by Velikovsky on pp. 24-25 and pp. 26-27 of V&ES. If you'd like, tell me your street address and I'll mail copies of these pages to you. V also had a explanation why the Egyptian's had a problem with falling buildings, but the Jews did not.

If you read the Physics Today letter cited above you'll see how bad Sagan did with his probabilities. But probability is beside the point. All actual events have a very low probability of happening, yet improbable events happen all the time. The crux is to establish whether or not the events really happened, not how unlikely they are. In July 1946 Einstein read the Venus part of WiC and wrote back on July 8th that V had shown that global catastrophes of extraterrestrial origin happened in 2nd millennium BC, but that Venus, most emphatically, was not the agent. V took comfort from the endorsement and ignored the bad news. Yes, this is ad hominem; but many have seen in certain myths, etc., that at some early time the sky was a threatening source: Whiston, Radlof, Donnelly, Hoerbiger, Bellamy, Beaumont, etc. Clube & Napier, too, were impressed on the basis of Bellamy's (screwball version) work that the myths were trying to tell us something and they came up with their Taurid Complex model which explains Velikovsky's "data" in terms of an astronomically feasible physical model. Sagan and his ilk (such as Chapman and Morrison in 1989) take the position that since V's model of colliding planets is crazy (a word used in correspondence with me), then there is no truth in the myths/data. What absolutely blew me away in the early 90s was reading Bob Kobres's paper on how the story of Phaethon can be seen as an account of a post perihelion comet passing closely BEHIND Earth: from certain longitudes, this body would be seen to rise as a Sun for 5 hrs, stand still for ca. 30 min. (while doubling in diam.) and then crash to the horizon in ca. 15 min. As I note in my SKEPTIC article that you cite, such an occurrence could well be the kernel of truth in the Sun standing still for Joshua. [To show how impoverished some scholarly insights can be, there are several papers in the literature that claim this "long day" is an account of a solar eclipse!-- which I never found persuasive.] And, of course, with Joshua, there is the hail of "barad", which can be taken to be meteorites and Clube & Napier would have no problem with them coming from the debris stream accompanying their proto-Encke, progenitor of the Taurid streams.

Because of all the problems I continue to have with Sagan's specific arguments, I developed my own "Top Ten Reasons Why Velikovsky Is Wrong About Worlds in Collision", which Tim Thompson posted for me on talk.origins in mid-August this year. Search DejaNews on "ellenberger AND Velikovsky" and one of the three or four hits will be the Top Ten.

Despite the foregoing fulminating, I really do like what you have written, especially for the tone, but you really are off base in parroting Sagan on V's literal use of sources and diehards like Ginenthal would take great delight in

skewering you on other "debatable" points.

*Have you seen the two books that Ginenthal put together recently? I have borrowed them from Bauer, to whom they were sent gratis so he'd be on record as having gotten them. Just as Sagan was sent V&ES in 1977, which he promptly ignored. Even when Kogan (V's older daughter) criticized him in *Physics Today* (sponsored by Freeman Dyson in the interests of fair play), Sagan did not reply (as he had replied to Robert Jastrow in *NYT* in late 1979), but David Morrison had a point-by-point rebuttal in 4/81 *P.T.* Well, seeing G'thal's books was very depressing for me. Such obsessiveness. Bauer told me he could not dredge up the energy/interest to read Gould & Velikovsky; but eventually he found the fortitude. So, when I saw Sagan's *Demon-Haunted World* ignored Velikovsky, I wrote Sagan wondering why, since this would have been a good chance for him to show how self-correcting science really was with him acknowledging his mistakes in *SCV* and *Broca's Brain* (note that the latter did undergo much revision, but little correction). His reply in effect denied he was aware of any errors in his treatment of WiC! Well, I wrote back that his App. 3 is totally fallacious; no "cooling" is demonstrated, only the *IDENTITY* that the heat radiated by Sun to Venus in ca. 60 min. equals that radiated by Venus at 79 K in 3500 years. No reply from him. I'll send you copies of this correspondence if you send me your address, as requested above. And, what he heck, I'll forward to you the *Top Ten*.*

Cheers,

Leroy Ellenberger

TOP TEN REASONS WHY VELIKOVSKY IS WRONG ABOUT WORLDS IN COLLISION

10. The "sequence of planetary orbits" that conserves angular momentum does NOT conserve energy, creating an enormous energy surplus, far more serious than Rose's mere "energy disposal problem," which is an example of the *_petitio principii_* fallacy (see *Kronos II*:4, p. 60 [and below]).

9. Orbit of Venus CANNOT circularize on Velikovsky's time scale, regardless what Einstein allegedly said in 1955; electromagnetism is no panacea & chaos theory cannot save the phenomenon, contrary to the wishful thinking of Bass.

8. Circular, resonant orbits of the moons of Earth & Mars betray no sign of recent disturbance, indicated by Velikovsky, or later capture, as Van Flandern noted in 1979 & of which Rose is willfully ignorant.

7. Since close encounters drastically increase inclination, the small inclinations of the orbits of Venus & Mars belie the multiple near-collisions outlined by Velikovsky. [This point is obscured by the 2-dimensional n-body simulations that were performed on talk.origins in 1994 while testing

Grubaugh's model.]

6. The debris Venus allegedly deposited in Earth's atmosphere causing 40 years of darkness after the Exodus left no trace in the world's ice caps or ocean bottoms, a test ignored by Rose.

5. The bristlecone pine survived the global catastrophe at 3500 BP that Velikovsky claimed killed all trees, to which he replied [to Ellenberger on Palm Sunday 1978] "So? They survived," indicating a cavalier attitude toward disconfirming evidence.

4. The continuity of flora & fauna on islands such as Hawaii [first noted by Roger Ashton at San Jose, Ca, Conf. in 1980 and later in C&C Workshop 1986:1, p. 5] shows they were not overrun by globe-girdling tidal waves at 3500 BP when the "Sun" stood still for Joshua, as Velikovsky claimed, an illusion produced by a post-perihelion comet passing *behind* Earth, as Bob Kobres explained for Phaethon; [see 3. The year was not 360 d. between 3500 BP & 2700 BP, as Velikovsky claimed, because at 3200 BP the Chinese reckoned the summer solstice recurred 548 d. after the winter solstice, i.e., $365.25 \times 1.5 = 547.875$, a datum smugly ignored by Rose in "From Calendars to Chronology," making the "Velikovsky Divide" a fraud & delusion, [in D.A. Pearlman (ed.), Stephen J. Gould and Immanuel Velikovsky (1996) wherein Rose avers "I have always wanted revenge on the various villains of the Velikovsky Affair, whether from 1950 or from 1965 or from 1974" (p. 702). The book is a petty, ponderous, mean-spirited, wrong-headed, and vindictive collaboration of Ginenthal, Wolfe, Rose, Cardona, D.N. Talbott, & Cochrane].

2. Magellan images of Venus reveal a crust too thick to have been molten 3500 years ago, & if the 900 large craters on Venus were so young then Earth would be expected to have more than the <20 craters of comparable size it does have. [NOTE Added by Tim Thompson: Also see my article "Is the Planet Venus Young?" <http://www.talkorigins.org/faqs/venus-young.html>]

1. Since Venus is too massive EVER to have had a VISIBLE tail, cometary behavior ascribed to the DEITY Inanna-Ishtar applies NOT to PLANET Venus, as Velikovsky & such naive epigoni as Cardona, Cochrane & Rose claim, but to a real COMET, now defunct or absent, which was ALSO sacred to Inanna-Ishtar, as Clube & Napier propose in *The Cosmic Winter* (1990); lesson: Inanna does not necessarily refer to Venus since she was ALSO associated with Moon, Sirius, etc. Thus, Inanna, NOT Venus, was hailed by the Mesopotamians as "Queen of the Zenith" [--an allusion to Sirius, a position never occupied by Venus in the putative "polar configuration"].

0. The revised chronology fares no better because the 10th century BCE, where Velikovsky places the XVIIIth Dynasty pharaohs coeval with the Minoan eruption of Thera, contains no signal for this eruption [in the

Greenland ice cores].

[These reasons present a prima facie difficulty for Velikovsky's position and support R.G.A.Dolby's arguments in S.I.S. Review I:3, 1976, 26-30 (adapted from Social Studies of Science 5, 1975, 165-175) and implicitly refute H. Meynell's reply to Dolby in which he claimed "...the impressiveness of Velikovsky's thesis is due as much to its coherence within itself as to its correspondence with ascertainable fact....that _one_ at first sight extremely improbable hypothesis, which should be liable to falsification in any number of ways, is in fact apparently confirmed in as many ways" (S.I.S. Review I:4, 1977, 5-8). The foregoing "Top Ten" would appear to contradict this assessment.]

Rose says "To undermine [an] argument, we need simply identify [the] false premisses[sic]." His false premises include (a) equating Inanna solely with Venus, a crude, ignorant reductionism, (b) treating religious texts as historical evidence for actual events instead of metaphors, & (c) over-emphasizing predictive power. In Kronos II:4, he should have said "to prove Velikovsky right you must assume Velikovsky right" & thereby ignore all the contrary physical evidence, which has priority over "historical" evidence which is subject to interpretation. Since Rose denies the absolute veto power of relevant evidence, he ignores it when he cannot pervert it. When Rose says "Velikovsky's critics had no decent arguments against him" & Wolfe says "there is no reason why Velikovsky...should be wrong _a priori_" [in Pearlman (ed.)] they merely show they, too, along with Ginenthal are each TRULY "an ignoramus masquerading as a sage"--deluded beyond redemption. [One of the gimmicks in Pearlman (ed.) is the classic Velikovskian tactic of turning a critic's words against him so that at every opportunity Henry Bauer is shown to be "an ignoramus masquerading as a sage", as Bauer showed Velikovsky to be in Beyond Velikovsky (1984).] Comments/questions welcome.

Leroy Ellenberger, 3929A Utah Street, St. Louis, MO 63116, USA Jan. 1997

reply: What more can I say? When I wrote to Mr. Ellenberger that I haven't had a student in years who has even heard of Velikovsky and that I no longer use *Worlds in Collision* as an example of pseudoscience in my critical thinking classes, he replied:

13 Sep 1997

I am getting into the swing of things in Skeptic's Dictionary and just read the reader comments on the Velikovsky entry and see much of what I wrote earlier has already been covered. Thus, I am surprised to see that, while you admit to having revised your entry on one point, you did not revise it regarding the literal use of the bible--which is a flat out misrepresentation on

Sagan's part. I'll also mention that the 1974 version of his analysis referred to the Motz & Bargmann letter in Science (12/62, I think) and also said that is only 20% of V's sources were valid, there was something to be explained, but by 1977 when Scientists Confront Velikovsky came out the Science letter was gone and there was nothing to explain.

With Velikovsky and Einstein, from 1921-23 in Berlin, Einstein was the editor of a volume of collected science papers by Jewish scientists in a series whose general editor was Velikovsky, whose father funded the project. Einstein read the Venus part of WiC in July 1946, as I said previously, but they were not in contact again until 1952 when V moved to Princeton and chanced upon E at Lake Carnegie, where they exchanged pleasantries. When V addressed the Graduate Forum at Princeton in Oct 1953 (text in Earth in Upheaval) Einstein sent his secretary and another woman from his household. They gave a favorable report to E so that he and Velikovsky, then, met and corresponded often during the last 18 months of E's life. When E died, a copy of the German edition of WiC was open on his desk. This volume can be inspected at the Einstein archives in Israel, as several scholars have done.

Also, V spoke a more open-minded game than he played. At PSA 1974 at Notre Dame, IN, Friedlander pointed out several instances where V had misrepresented his sources, one being what Lyttleton said about a fission origin for Venus from Jupiter. V had changed Lyttleton's "it is even possible" to "must", but V balked at owning up to this faux pas while demanding to be shown the texts, which Michael had with him. Similarly, at Brown Univ. in 1965 (where V hoped to confront Neugebauer), Abraham Sachs took Neugebauer's place when N refused to be on the program, "ambushing" V on a host of points. After Sachs spoke, V said he had a reply to each of Sachs' points as he would reveal the next day at the Q&A session at Diman House. Well, Sachs did not appear and V volunteered nothing. When he got back to Princeton, he prepared finished typed rebuttals to all the other speakers at Brwown, except Sachs, for whom only partial pencilled comments exist.

However, since the 1960s when LYttleton and McCrea toyed with fissioning of gas giants to form inner planets (this would have to have been early in solar system history, for once a core forms, it would not participate in any fissioning), this process has been shown to be ineffective, or inoperable in practice. But V's supporters still trot out Lyttleton fissioning even in 1997. Cheers,

Leroy Ellenberger (who knows more than anyone wants to know about Velikovsky)

P.S.: Yes, interest in V is not what it used to be. In 1986 25 people sent for the additional info I offered in my SI letter. In 1995 I offered four obscure papers in my refs to readers for a 32 cent stamp each. Only one reader responded. My letter in S/O SI now has the URL for my Velidelu article, but no one so far

has e-mailed me from the link in the web version. But people do continue to get attracted to V's ideas by various means, as I've noted before. Just yesterday I got a slick, full color catalog from Truth Seekers in San Diego offering books and video tapes for all sorts of b.s., including the Kronia tape "Remembering the End of the World" along with the tapes from the SSE's conference last Sept "Return to the Source"--many of whose speakers were nuts, such as Hancock, West and Flem-Ath, but others on the program had real information to convey, such as Frank Edge (see Sept. Griffith Observer) who has deduced that the Great Bull in the cave at Lascaux (15,000 BC) represents Taurus. Dots in the bull's head represent the Hyades and dots over its shoulder represent the Pleiades AND at that epoch the full moon at the summer solstice rested in the bull's horns. Cool. CLE

Mr. Ellenberger is not quite finished:

Dear Prof. Carroll,

Thank you for your reply. I still think, however, your Worlds in Collision critique should be amended, if not corrected/re-written to acknowledge that Velikovsky did not, contrary to Sagan's analysis, take Biblical stories literally. I shall send you a copy of Velikovsky's rebuttal to Sagan on this point as I indicated yesterday.

On the one hand I have heard your comments about student awareness before and on the other hand I see what the neo-Velikovskians are doing on the 'net and elsewhere to obtain followers, as my recent memorandum to 30 or so skeptics, etc., describes (which I'll also send to you); see the kronia site: and judge for yourself. AND, I know recent college graduates who "discover" Velikovsky by one way or another and are persuaded by the propaganda, even now. This suggests to me that your sampling of students is not a valid indicator of the potential interest in Velikovsky and related issues that is "out there"--where the truth should also be. I'll also send you a revised and enlarged version of my Su 1986 Skep. Inq. letter "A lesson from Velikovsky."

Further to my concerns yesterday, I do not recall seeing Skeptical Dictionary deal with Wilhelm Reich and orgonomy, which is still going strong and is also a lacunae in CSICOP's recent Encyclopedia of the Paranormal, Gordon Stein, ed. (and which volume I do not recall seeing offered in your electronic bookstore. If I misspeak myself here, I apologize. I really am not trying to be a "pill", just concerned about covering all the relevant bases.

Oh, yes, I'm sure the point is not lost on you that for someone like Sagan to promote good science and critical thinking and then use erroneous physics and fallacious logic to debunk Velikovsky is not "good form"--and I think groups like CSICOP should be concerned with such lapses in procedure, even when their fair-haired boy is a culprit. When you see my correspondence last year with Sagan you will see what I mean.

Cheers,

Leroy Ellenberger

reply: Sagan ignored the charges that he intentionally used "erroneous physics" and "fallacious logic" to debunk Velikovsky. Sagan and the Veikovskians were never two scientific schools battling it out for domination. At best, their confrontation could be called "philosophical." It had nothing to do with the nature of science. I have seen your correspondence with Sagan (for which I thank you) but I do not read from it any more than that he didn't have a clue as to what you were talking about when you demanded him to "self-correct."



[Velikovsky](#)

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reader comments:

wicca

29 Dec 2000

*You briefly make mention of the Inquisition's role in persecuting witches in your article on Wicca. This is a myth carried over from 19th century scholarship. I mention the mistake only because it perpetuates an inaccurate picture of the Catholic Church during medieval times. True, "witches", or people accused of witchcraft, were condemned at times by Christians, but mostly post-Reformation and by non-Catholics. The greatest numbers of executions occurred in Germany, Switzerland, and eastern France. The usual official Catholic position was that there are no such thing as witches and would be more quick to condemn the accusers than the "witches." For more information, see *Those Terrible Middle Ages : Debunking the Myths* by Regine Pernoud or here is a web-page: http://www.cog.org/witch_hunt.html.*

(According to Pernoud, the number of people executed by the Inquisition ever, for any reason, is much less than the number of "witches" put to death by post-Renaissance secular courts.)

Todd Pellman

reply: Interesting. Sounds like Pernoud is doing some revisionist history. What next? A denial of the Inquisition?

The two of you might want to reflect on the following, taken from the [Catholic Encyclopedia entry on "witchcraft."](#)

In the Holy Scripture references to witchcraft are frequent, and the strong condemnations of such practices which we read there do not seem to be based so much upon the supposition of fraud as upon the "abomination" of the magic in itself. (See Deuteronomy 18:11-12; Exodus 22:18, "wizards thou shalt not suffer to live" — A.V. "Thou shalt not suffer a witch to live".) The whole narrative of Saul's visit to the witch of Endor (I Kings 28) implies the reality of the witch's evocation of the shade of Samuel; and from Leviticus 20:27: "A man or woman in whom there is a pythonical or divining spirit, dying let them die: they shall stone them: Their blood be upon them", we should naturally infer that the divining spirit was not a mere imposture. The prohibitions of sorcery

in the New Testament leave the same impression (Galatians 5:20, compared with Apocalypse 21:8; 22:15; and Acts 8:9; 13:6). Supposing that the belief in witchcraft were an idle superstition, it would be strange that the suggestion should nowhere be made that the evil of these practices only lay in the pretending to the possession of powers which did not really exist....

...after the middle of the thirteenth century, the then recently-constituted Papal Inquisition began to concern itself with charges of witchcraft. Alexander IV, indeed, ruled (1258) that the inquisitors should limit their intervention to those cases in which there was some clear presumption of heretical belief (*manifeste haeresim saparent*), but Hansen shows reason for supposing that heretical tendencies were very readily inferred from almost any sort of magical practices. Neither is this altogether surprising when we remember how freely the Cathari parodied Catholic ritual in their "*consolamentum*" and other rites, and how easily the Manichaeism of their system might be interpreted as a homage to the powers of darkness. It was at any rate at Toulouse, the hot-bed of Catharan infection, that we meet in 1275 the earliest example of a witch burned to death after judicial sentence of an inquisitor, who was in this case a certain Hugues de Baniol (Cauzons, "*La Magic*", II, 217). The woman, probably half crazy, "confessed" to having brought forth a monster after intercourse with an evil spirit and to having nourished it with babies' flesh which she procured in her nocturnal expeditions. The possibility of such carnal intercourse between human beings and demons was unfortunately accepted by some of the great schoolmen, even, for example, by St. Thomas Aquinas and St. Bonaventure....

...there can be no doubt that during the fourteenth century certain papal constitutions of John XXII and Benedict XII (see Hansen, "*Quellen und Untersuchungen*", pp. 2-15) did very much to stimulate the prosecution by the inquisitors of witches and others engaged in magical practices, especially in the south of France. In a witch trial on a large scale carried on at Toulouse in 1334, out of sixty-three persons accused of offences of this kind, eight were handed over to the secular arm to be burned and the rest were imprisoned either for life or for a long term of years. Two of the condemned, both elderly women, after repeated application of torture, confessed that they had assisted at witches' sabbaths, had there worshipped the Devil, had been guilty of indecencies with him and with the other persons present, and had eaten the flesh of infants whom they had carried off by night from

their nurses (Hansen, "Zauberwahn", 315; and "Quellen und Untersuchungen", 451). In 1324 Petronilla de Midia was burnt at Kilkenny in Ireland at the instance of Richard, Bishop of Ossory; but analogous cases in the British Isles seem to have been very rare. During this period the secular courts proceeded against witchcraft with equal or even greater severity than the ecclesiastical tribunals, and here also torture was employed and burning at the stake. Fire was the punishment juridically appointed for this offence in the secular codes known as the "Sachsenspiegel" (1225) and the "Schwabenspiegel" (1275). Indeed during the thirteenth and fourteenth centuries no prosecutions for witchcraft are known to have been undertaken in Germany by the papal inquisitors. About the year 1400 we find wholesale witch-prosecutions being carried out at Berne in Switzerland by Peter de Gruyères, who, despite the assertions of Riezler, was unquestionably a secular judge (see Hansen, "Quellen, etc.", 91 n.), and other campaigns — for example in the Valais (1428-1434) when 200 witches were put to death, or at Briançon in 1437 when over 150 suffered, some of them by drowning — were carried on by the secular courts. The victims of the inquisitors, e.g. at Heidelberg in 1447; or in Savoy in 1462, do not seem to have been quite so numerous. In France at this period the crime of witchcraft was frequently designated as "Vauderie" through some confusion seemingly with the followers of the heretic, Peter Waldes. But this confusion between sorcery and a particular form of heresy was unfortunately bound to bring a still larger number of persons under the jealous scrutiny of the inquisitors.

It will be readily understood from the foregoing that the importance attached by many older writers to the Bull, "Summis desiderantes affectibus", of Pope Innocent VIII (1484), as though this papal document were responsible for the witch mania of the two succeeding centuries, is altogether illusory. Not only had an active campaign against most forms of sorcery already been going on for a long period, but in the matter of procedure, of punishments, of judges, etc., Innocent's Bull enacted nothing new. Its direct purport was simply to ratify the powers already conferred upon Henry Institoris and James Sprenger, inquisitors, to deal with persons of every class and with every form of crime (for example, with witchcraft as well as heresy), and it called upon the Bishop of Strasburg to lend the inquisitors all possible support.

It is little comfort to know that one part of the Protestant Reformation by

such men as Luther and Calvin included an even more vehement and violent attack on witchcraft and consorting with Satan. But to claim that it is a myth that the Catholic Inquisition persecuted witches is a bit much.

**Of course, revisionist history is no stranger to Wicca. For those interested in an article critical of Wiccan revisionism see "The Scholars and the Goddess" by Charlotte Allen, [Atlantic Monthly](#) (Jan 2001).
[thanks to Mary Fairchild]**

October 30, 2002

The fact is that until the last few decades there had been only a smattering of scholarly research on the subject, and the recent surge in research has shown that much previous accepted knowledge on the subject is little more than myth.....The Catholic Encyclopedia paraphrases Jacob Hansen....Unfortunately, Hansen's primary source is "Histoire de l'Inquisition en France" (1829) by Etienne Leon de Lamothe-Langon. This work - which formed the foundation of much nineteenth century "scholarship" on witchcraft - has long been demonstrated to be a complete fabrication![1] (In fact no record can be found of any witch trials in Toulouse in 1275, and the sex-with-demons stuff is also anachronistic.) Thus we must suspect that "the Catholic Encyclopedia" article is rather out of date.

Anyway, to address the three particular points raised:

a) Chronology: Despite the common myth that witch trials were a feature of the Mediaeval period, in fact modern research has found that very few occurred in that period; the overwhelming majority of witch trials and executions were post-Renaissance [2]. This surprises many people who think of the Mediaeval period as regressive and the Renaissance as enlightened, but the explanation is forthcoming when one looks at geography and chronology in more detail. For in fact the highest peaks of witch persecutions are at times of social chaos when local authority has broken down, such as during the German reformation, Thirty Years War and so on. For example, the only significant outbreak of witch mania in England was during the Civil War.

b) Geography: Once again, popular myth would associate most witch trials with Spain or perhaps France. In fact, by far the greatest concentrations occur in the German states [3], with high levels also in Switzerland and Scandinavia. Spain, Portugal and France all had relatively low levels. While it appears that one was more likely to be accused of witchcraft in a Protestant area than a Catholic one, this very likely has more to do with the chaos of change than Protestantism.

c) The Inquisition: No Hollywood witch trial would be complete without an Auto da Fe and a burning at the stake. Once again popular myth is way off

mark. The Inquisition was a very real horror, but its mandate was rooting out heretics (especially Jews and Muslims), and this specifically excluded witchcraft: "The Inquisitors, deputized to investigate heresy, must not intrude into investigations of divination or sorcery without knowledge of manifest heresy involved." [4] In fact the overwhelming majority of witch trials were conducted by secular courts, and of those conducted by the church only a tiny percentage were by the Inquisition. [5]

yours,

Roger Fleming

PS. For what it's worth, I am an agnostic from a Protestant background.

Notes:

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1. Cohn, "Three Forgeries: Myths and Hoaxes of European Demon-ology," Encounter 44, 1975.
2. Levack, Brian, The Witch Hunt in Early Modern Europe, Longman Group, New York, NY, 1992.
3. H.C. Erik Midelfort, "Heartland of the Witchcraze: Central and Northern Europe," History Today #31, p.30
4. Kors, Alan C. and Peters, Edward, Witchcraft in Europe 1100-1700: A Documentary History, University of Pennsylvania Press, Philadelphia, PA, 1981, p. 79
5. Kieckhefer, Richard, European Witch Trials: Their Foundations in Popular and Learned Culture, 1300-1500, University of California Press, Berkeley, CA, 1976, pp. 105-147.

26 Jun 2000

Kind Sirs:

I have been a Pagan for most of my life. There have been times when I would have considered myself a Wiccan as well. It works for me. And I guess that is what most religions are about. A matter of faith, a hope, a feeling that connects us to others so we do not feel alone.

I have ventured through many different religions in the hope of finding a

purpose other than to trod upon this wondrous planet of ours and deplete its natural resources. I believe that it all boils down to what each individual is most comfortable with, and finding spiritual practices that feel in-line with one's personal spiritual goals.

Religion is a very personal matter. Unlike other religions, Wiccans and Pagans do not seek to convert others to their belief system. We do not say ours is the only way. Just as there are many routes to travel from San Francisco to New York, so too are there many paths to our "Glorious End". It is a matter of free will.

Your statement regarding Wiccan as not being a religion leaves me little nonplussed, for what is a "religion"? According to the New Heritage Dictionary of the English Language - ...3. The spiritual or emotional attitude of one who recognizes the existence of a superhuman power or powers. 4. Any objective attended to or pursued with zeal or conscientious devotion. 5. Sacred rites or practices. coming from the Latin word religio - a bond between man and the gods...

To my way of thinking, Wicca would then be a religion. Like Christianity that has many different facets (Baptist, Catholicism, Lutheran, and on and on) so too are there different facets of the Wiccan belief system.

Regarding your statement that Wiccans do not cast spells - well, some do and some don't. Just as not all Christians attend Sunday services and not all Jewish people attend Temple, not all Wiccans cast spells.

In my most recent past I have worked many spells, and all have worked, unfortunately so. I say unfortunately because the end was not always what I had expected. The goal was reached, but twisted a bit mainly because of my selfish nature coming through. And there in lies the rub. Any task or goal set upon with purely selfish intent is bound to "fail" or turn out differently than how one intended.

The axiom "And ye harm none, do what ye will" provides great freedom but also comes with a very high price tag and responsibility. One must clearly think through what it is they want, and make sure that no other being will suffer in the process.

It is true we build no temples or churches, for how could we possibly improve upon the wondrous surroundings that are here already - parks, gardens, forests - for these truly show the wonder and magnificence that is found in Nature, of which we are all a part.

The candles and incense we burn are used as visualization tools - as is seen in many other more widely accepted religions. Herbs and Charms and the preference for herbs over more traditional medicinal treatments are quite

widespread among many different cultures all over the world. To wit - St. Michael's medals, crucifixes, rosaries, prayer beads and prayer wheels. Herbs (like St. John's Wart, Echinacea, Gingko Biloba) are being sought as alternatives to traditional medicine by those other than Wiccans. Herbs have been used as medicine for centuries, and not just by Wiccans.

It is true we don't pray for harm to our enemies. Another "golden rule" of Wicca is that what we do comes back to us threefold. Why set out to purposefully attract negativity in our lives? Surely it would be better to commit random acts of kindness and love.

In Nature one finds a very common denominator - abundance. There is more than one Oak tree, and it has more than one branch, leaf or acorn. There are many antelopes in a herd, many leaves of grass in a plain. So too is there abundance for us humans. It is the way of Nature of which we are all a part.

Alicia May

All That Is and Ever Will Be Bless your day with warmth and light

reply: Thanks. I hope you have a long and peaceful life.

1 Jan 2000

I have just recently visited your sceptical dictionary page. I applaud your writing skills; I applaud your scepticism; I applaud your willingness to educate the public on little known facts; I applaud your ability to tell the truth with what seems to be a (mostly) unbiased slant, but (and I'm sure you heard that but a mile away) you are partially uninformed on the subject of Wicca. I am Wiccan, and I can tell you with first hand knowledge, Wiccan's cast spells.

reply: Well, of course, we *all* cast spells. But can you cast a spell that works? I doubt it, unless you can find some sucker who can be manipulated by the power of suggestion.

I plan on casting a spell tomorrow. The way that magick works is none of my concern, if it works is none of my concern, but many Wiccans will tell you that as a spell is cast the elements (earth, water, fire and air), which are only aspects of the God and Goddess, will cause the desired effect. Wiccan's are only pantheistic to the point that we call on the names of different Gods and Goddesses. In Wiccan phylosophy all the names of Goddesses belong to the one Goddess, and all the names of the Gods belong to the one God. Wicca is not anymore friendly to women then to men. Equality is a huge rule, strictly taught, as is the Wiccan Reed ("An it harm none, do as ye will") and the Rule of Three ("Ever mind the Rule of Three, Three times what ye gives returns to ye")(my assumption has always been that the "ye" in replacement of "you" was for rythmic/asthetic effect). Wicca in the 80's was shockingly feminist, but we are a changing people and have a tendency to correct our hypocrisies, the original

feminist wicca, Dianic Wicca has taken a noticeably large drop in membership, and the number of men professing to be Wiccan has doubled. To say that Christianity is not woman friendly is not accurate either. Catholicism, which previously has been very sexist has taken a radical turn, women may now (again) be Deaconesses, and many say that Vatican3 [sic] may come hard on the heels of the next Pope, and will allow women to be priests. One can only guess. I was surprised that you quite so bitterly accused us as not caring about death, or mass death. Perhaps if you understood our slant: Death is a natural process in the cycle of life. As the mother kills the child, so the mother kills the trees. In nature animals and plants are killed daily, everywhere, but they will live again. The true tragedy is that we have halted the process of natural death. No more do wildfires kill trees, but in order to preserve the natural cycle we must clear cut. If you could include this information on your web page I would be much obliged, as a Wiccan I feel it is my duty to educate the world in our truths so that we aren't cast in a bad light. And as a Wiccan saying goes: Merry Meet, and Merry Part, and Merry Meet again.

Blessed Be,

WillowRose

reply: There are few who respond to the *Skeptic's Dictionary* entry who are more annoying than Wiccans or witches. They have no formal dogma or ritual, and they each proclaim like infallible popes on whatever subject pleases them. According to them, nobody ever accurately characterizes their beliefs or practices. How could they?

Here's a typical example:

1/5/00

Mr. Carroll, I am a Wiccan of 5 years, although I do realize that this is a skeptical page, I do wish that you would get your information correct. You information on witchcraft is all wrong! You are sending the wrong message to those who already have the wrong picture of my people. I do wish that you would post the correct info, when you skeptics do these sites. We need not your help in swaying the people to the wrong side of our troubles. Too many people already do not care to know the truth about us, and too many are trying to stop our practices. I do hope that you will correct your information or at least attempt to. May I ask where you got your information from?

Blessed Be!

Selene

06 Jun 1999

*In the **Skepdic's Dictionary** you said that wiccans don't have a form of law. Yes, we do. To find some information on our law search the Internet. It will be under Wiccan Rede, 13 goals of a witch, Charge of the God, Charge of the goddess, The witches Rune, and The witches' creed.*

Secondly, we do cast spells and make potions.

Ryan Fliginger

reply: Wiccans don't have a written creed that the orthodox must adhere to.

10 Sep 1998

I am a practicing Wiccan. While I was glad that your "skeptic's" article on Wicca did not classify it as a satanic religion, or blather about the inherent evil of witchcraft, I was disappointed that you portrayed Wicca as more or less a piece of fluff -- "barefoot circle dancing," and whatnot -- and said that Wiccans worship only the "cute and fuzzy" side of nature with a "hug a tree" mentality, and are completely blind to the fact that nature can be a blindly destructive force. Wicca has a lot of depth to it. If you did your research thoroughly, you know that we worship, among other things, the Triple Goddess -- Maiden, Mother, Crone -- and the Dual God, the Horned God and the Hooded God. The Crone and the Hooded God are both deities embodying death and destruction, as well as rebirth. We do not deny that nature can be dangerous and destructive. However, we see this -- as you said -- as part of a natural cycle. If we learn to live in harmony with the earth, even the hard seasons can be survived. There are, I would remind you, Goddesses of volcanoes, Goddesses of thunderstorms, and Goddesses of earthquakes. It is a simple fallacy to assume that Wiccans are so blind as to deny the destructive side of the natural cycle. Of course, I would point out, this is a question that can be raised of any deity, not just the Wiccan one. We might just as easily ask how Christians or Jews can worship their god despite floods, tsunamis, tornadoes, and so on.

Wicca really isn't a religion designed for women's revenge, either. We stress EQUALITY of the sexes, not SUPERIORITY of women over men, or vice versa. And as for saying that Wiccan magick has never turned aside a hurricane or an earthquake -- well, there are some forces that are too great for us to handle. However, if you research "Weather Witches" I'm sure you will find some very interesting cases, that will give you pause in your skepticism, if nothing else.

One more thing. You say "They do not worship the mother of Dionysus, seared to the soul with a lightning bolt." (Okay, so that's a loose paraphrasing.) But in the cult of Dionysus, worship of Semele -- who was later led up from the underworld by Dionysus, and made Queen of the Maenads -- is quite common. She is seen as an aspect of the Goddess; her death is the Descent of the Goddess, a common theme in Wiccan theology. (Not a typo. Thea = goddess; theology = study of the goddess.) The Descent of the Goddess -- a cycle of death, suffering, sacrifice, and ultimate rebirth -- also ought to give pause to your insistence that Wicca is an ultimately shallow religion of blind, self-satisfying worship of only those aspects of nature that we choose to see. I appreciate you doing your utmost to portray Wicca honestly. A skeptical view is

always welcome in any forum, though it may ultimately prevent faith, which, while not perfectly "logical," can transform the world in many ways. You are a professor of philosophy -- I am sure you are familiar with this quote. "There are more things in heaven and earth, Mr. Carroll, than are dreamt of in your philosophy."

Haima Talib

reply: I've revised the "Wicca" entry regarding destructive natural forces. (p.s. Even professors of philosophy read Shakespeare. The quote is from *Hamlet*: "There are more things in heaven and earth, Horatio, Than are dreamt of in your philosophy.")

2 Jun 1998

The Skeptic's Dictionary is a simply magnificent work! I've been reading it voraciously, though surreptitiously (I'm at work). I hope you don't mind that I downloaded a few chunks of it to give to friends who send both "white light healing energy" and substantial sums of money to the operators of "positive, holistic chain letters."

*I've come to skepticism in my late twenties, after a protracted and embarrassing adolescence in which I was enamored of any occult or magical theory to come down the pike. I just thought I'd offer you the benefit of my skeptical perspective on the Wiccan faith, as there's a *lot* more hooey out there than you expose in the current version of the article.*

There's a "sacred history" in Wicca, which has about the same relation to empirical history that Genesis has; many Wiccan writers assert that

1) nature worship of the Horned God and Mother Goddess was universal throughout Paleolithic and Neolithic Europe; some Wiccan writers also insist on the universal peace-loving matriarchy pseudohistory.

*2) this worship persisted into the Christian era as *deliberate and self-conscious religious activity**

3) the practitioners of this religion were considered "wise ones", and that this is the basis of the modern term "witch;" they are also asserted to be midwives, healers, and herbalists.

4) the witchcraft persecutions of the sixteenth and seventeenth centuries were directed at the destruction of the old Pagan tradition; the term "Old Religion" used in post-Reformation English writings relates to Witchcraft or nature religion; nine million Witches (that is, Goddess-worshippers) were supposedly killed between 1485 and 1600.

5) modern Wiccan practice (as described by Gerald Gardner in the early 1950s) is a direct descendant of these preChristian practices. The five statements above are, in my opinion as a folklorist and a vaguely lapsed Wiccan, absolute and unmitigated hooey. Would you be interested in hooey sources and sound-fact sources, or both?

*In my experience, the standard Wiccan doctrine -- the "sacred history" story -- is about as historically sound as Afrocentrism or other pseudohistories. One of the other writers mentioned Margaret Murray's *Witch-Cult in Western Europe*; around the time of its publication in 1921, it was a seminal source in interpretation of the witchcraft persecutions. Modern Wiccan myth-history owes a great debt to Murray's interpretation; I know of no sources prior to 1921 that equate witchcraft with nature-centered folk religion. The problem with this, which another reader commented on, is that Murray has been almost **completely** discredited within anthropological circles.*

Wicca is based in a large part on etymological, anthropological, and folkloric research done between 1900 and 1940. The theories and approaches of those disciplines have evolved considerably since then; the Wiccan sacred history has not.

Thanks again for the wonderful contribution to the discourse on the Web.

Please don't post my name on the web page; I spend enough of my life arguing with Wiccans as it is.

27 Nov 97

An excellent Wicca page.. If only pages such as yours OPENED minds rather than incited the zealots, it would be a fairer world indeed.

Tom M.

20 Aug 1996

I've enjoyed browsing through your Dictionary. I especially appreciate your article on Wicca. Several of my friends are Wiccans and you've exactly described their religion. (Well, exactly as possible for what I call a disorganized religion.) Thanks for dispelling a few nasty myths. Hopefully the end result will be a few more people who don't automatically lump Wiccans in with Devil Worshipers.

Maria Bartz

19 Sep 1996

I stopped by to check out your excellent info on Landmark Forum -- a friend has been trying to get me involved, and I decided to learn more about it (now that I know Erhard is behind it, I'm staying away!) but as a Wiccan I thought I'd look over your piece on Wicca. You are dead-on with one exception -- I am at least one "barefoot Wiccan" who stands in awe before the lashing wind of the tornado, the baking drought Sun. Most sincere and knowledgeable Wiccans are well aware of the balance between creation and destruction. The Triple Goddess symbol, acknowledged by most of my co-religionists, is a representation of that very dichotomy. The Maiden is all that is new. The Mother is the Creator of Life. The Crone is endings, Death and Destruction. We see this in a cycle, a great circle. It is not "birth, life, death, full stop." but rather, "birth, life, death, rebirth, etc."

The awesome, powerful and destructive elements of the Earth, from volcanoes to tornadoes to wildfires to floods, are the natural processes of the planet, and we seek to find our place in that process. It is not all chanting and butterflies. There is also a dark half in the Yin-Yang symbol -- that balance is necessary. To ignore the shadow of a thing is to ignore half the thing itself. Isn't that why you do this page? To explore the shadow?

For whatever reason, I am glad you do it. Thanks for creating such a wonderful resource!

Laurie Atwater

reply: Some say I always find the cloud in the silver lining. But I sometimes think that the cloud's more interesting, if not more real.

25 Oct 1996

*I found your dictionary via a link of criticism of the Celestine Prophecy - well done indeed - and I wanted to thank you for your balanced portrayal of Wicca. As a Wiccan myself, I must say that it is refreshing not to be called a "satanist" or to be accused of sacrificing small animals to dark forces (of course, as a vegetarian and animal rights supporter, I guess I'd have to sacrifice a *rubber* chicken, which would actually be pretty funny).*

One bit of information you've gotten slightly wrong is that Wiccans are not all about light, sunshine, and joy. Our "religion" (although I hesitate to call it so) is about balance and cycles. Thus we honor the archetypes of the triple Goddess of Maiden (beginnings), Mother (fruition), and Crone (death and rebirth), and the God as divine sun child, lover/hunter/protector, and then king who dies that life may continue. The idea that life feeds on life is fundamental to many of our celebrations, and at each holiday there is the acknowledgment of the "opposite" holiday (for instance, at Beltane, the holiday at which we honor the fertility of the earth and her creatures, we remember Samhain, the holiday

at which we remember and honor those who have passed over). The wheel of the year is about the cycle of light and darkness, of birth, life, death, and rebirth, of extroversion and action as well as introversion and contemplation.

My point is that we're not all a bunch of airy-fairy, white light optimists - we acknowledge and revere the dark side of life, nature, and the universe equally.

Blessings to you,
Elizabeth Weaver Engel

17 Dec 1996

I read your entry on "wicca" and can say that you have accurately portrayed our "religion" as it is. This, to say the least, is a great comfort, for many people not directly connected with the beliefs of wicca (whatever religion they themselves follow) many times take with them the ideas that society has presented to them since they were children. I mean, who wouldn't hear the word witch and see an old green-skinned lady with a black pointy hat and a broom. (oh goddess, did i forget the black cat??)

*However (ah yes, there always is a however...) I *am* a person that worships all forces of nature, whether they be destructive or no. Every part of nature works together, and although they may not bring desirable consequences to humanity, they do shape the earth and keep it alive and well. That is, if one sees the earth as a living organism...it *is* a big rock..*

*If you could add one thing though about the "satan worshipping". It seems a surprise to many people that after we deny worshipping satan that we tell them wiccan's don't even *believe* in satan. But this is true. Satan, in my opinion (needless to say there are countless others) is a creation of Christianity. God, being the all powerful, all *good* entity, needed a counterpart. So there is the Devil, all powerful, all *bad*. You can't have one without the other it seems.*

*When Wiccans worship, we don't usually have a very specific god or goddess we speak or pray to. There are, in many traditions, "deities for every occasion". These include all things that are "good and bad" (put in quotations because that black and white saying is rather open for speculation itself. What *is* good and what *is* bad?)*

*Yes, there *are* Satan worshipers in this world, and they do perform terrible things. These many times are also people just looking for an excuse to commit crimes and say "oh hey, lets start a satanic cult so we can kill cats and stuff." The majority of "satanists" around today are adolescent boys. That ought to say something in itself.*

I look forward to the day when the word "witch" doesn't bring up the picture of

that old green woman again.

Caillean Grey

reply: As I was reading your note, I couldn't help but see the parallel between satanists and modern politicians. Of course, I just saw Tim Burton's *Mars Attacks!* and will have jaded perception for a week or so before I pretend again to see our political leaders as important players in the quest for world peace and good will toward humanity. Say, when are wiccans going to get their own TV show?!!

5 Oct 1997

I'm rather surprised that instead of adopting a skeptical attitude toward Wicca you chose to present it in such a positive light that the Wiccans have fallen all over themselves to congratulate you. Your article seems to me more an attack on Christianity than a critical look at Wicca.

reply: I think the Wiccans were happy to be raked over the coals by a non-Christian for a change. They probably aren't as hateful in their letters as some from other religions (whose denominations shall remain secret) because I don't accuse them of devil worship or of eating or sacrificing children.

*You make no mention, for instance, of Dr. Margaret Murray's 1921 book *The Witch Cult in Western Europe*, which first promulgated the idea the witchcraft was an "organized" religion (loosely organized to be sure) that survived the persecution of a Christian patriarchy during the Middle Ages. This book has had many detractors among Medieval scholars.*

If Margaret Alice Murray's *The witch-cult in Western Europe : a study in anthropology* (Oxford : Clarendon Press, 1921) has had many detractors among medieval scholars, why would you want me to mention it?

You make no mention of the controversy over the etymology of the word "witch."

reply: If this is so important, why didn't you share this knowledge with us?

You make no mention of the founder of Wiccan, Gerald Gardner, a man who can best be described as a plagiarist and a liar.

reply: Here I admit to failure. Perhaps I have been intimidated by the very vocal devoted fans of Aleister Crowley who have been relentless in their criticism since I accused him of much worse things than being a plagiarist and a liar.

You make no mention of pre-Christian views of witches in the works of Roman authors like Pausanius. Indeed you seem not to have done any homework at all on this subject.

Very soft skepticism indeed!

Bob Champ

reply: Actually, Bob, Pausanius was the first thing I thought about when considering doing an entry on "wicca" but I guess I just got sidetracked on too many side issues. Maybe you can fill in the gaps and write the history of witches from Pausanius to Gardner from the perspective of a hard skeptic.

10 Jan 1998

I read with interest your article on Wicca/Witchcraft. As a practicing Witch for over 13 years, a legally-ordained minister, and the Nat'l VP of WADL (see below), I must admit that I was very impressed by your description.

The one thing I take exception to is your putting down of "magick". I hear the same remarks from "BURN Again Christians"! You are missing the point -- Wicca is a RELIGION, NOT a "Cosmic Santa Claus" that will grant our every desire by waving a magic wand! (I think you've watched too many movies!). It, like any other faith, is a way of THANKING the Creator for what It has given us in our lives.

You might just as well say that the "goal/purpose" of Christianity is to "get things thru prayer", and, unfortunately, that IS all it is to some/most people. I call this the "Aladdin's Lamp Syndrome".

(Novices come to me, asking how to attract "Mr. Right", and all that, and I tell 'em the SAME THING!).

Being a skeptic, you probably don't believe in a Creator, which is your right. But... WE DO!!!!

I invite you to [check out my site](#) to help you understand us better.

Norm Vogel National VP and NJ Director [Witches Anti-Discrimination League](#)

reply: Thanks for setting the record straight. By the way, many skeptics believe in a Creator.

10 Jan 1998

Hi again!

I just read your essay on "Witches". sigh. I really wish people would lose the "consort with satan" crap! WITCHES NEVER WORSHIPPED SATAN! NEVER! That was BS that was created by the Christian church to stamp out a rival faith (Witchcraft). Witches perceive the Male Aspect of Deity as having horns, and the early Christians said that "satan has horns" (although nowhere in the Bible does it say this); ergo, "witches worship satan". BS!

Why do you insist on explaining Witchcraft from a Christian standpoint, esp. since you call yourself a "skeptic", and presumably don't believe in God in the FIRST place! Tell what Witchcraft WAS and IS -- not something clouded by another faith!

Norm Vogel

reply: I think I make it pretty clear that much of what is believed about witches is Christian mythology. When you Wiccans are the victors, then you can rewrite history to your liking. But why pretend that most of what is believed in the western world about witches did not originate with Judaism and Christianity?



[wicca](#)

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[witches](#)

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wizard

A wizard is, literally, a wise person (from the 15th century Middle English *wysard*). The term came to refer to someone who claims to have supernatural knowledge or power, such as a [sorcerer](#) or one devoted to [black magic](#).

Today, the term is extended to refer to anyone who has a seemingly magical skill.

Last updated 02/03/03

[xenoglossy](#)

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Struggle: The Art of Szukalski Organized by Laguna Art Museum November 12, 2000 - January 7, 2001

Zermatism

Zermatism is a [pseudoscience](#) invented by Stanislav Szukalski (1893?-1987), a gifted Polish [artist](#) and immigrant to the United States, in a 39-volume work. Zermatism maintains that all human culture derived from Easter Island after the flood which destroyed all living creatures except those on [Noah's ark](#). All languages derive from a single source (the Protong) and all art is a variation on a few themes that can be distilled down to a single series of universal symbols. Zermatism explains the differences in races and cultures by claiming that they are due to the cross breeding of species. The first humans were nearly perfect but they mated with [Yeti](#) with abominable results.

further reading

- fantasticart.tripod.com/szukalski.htm

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